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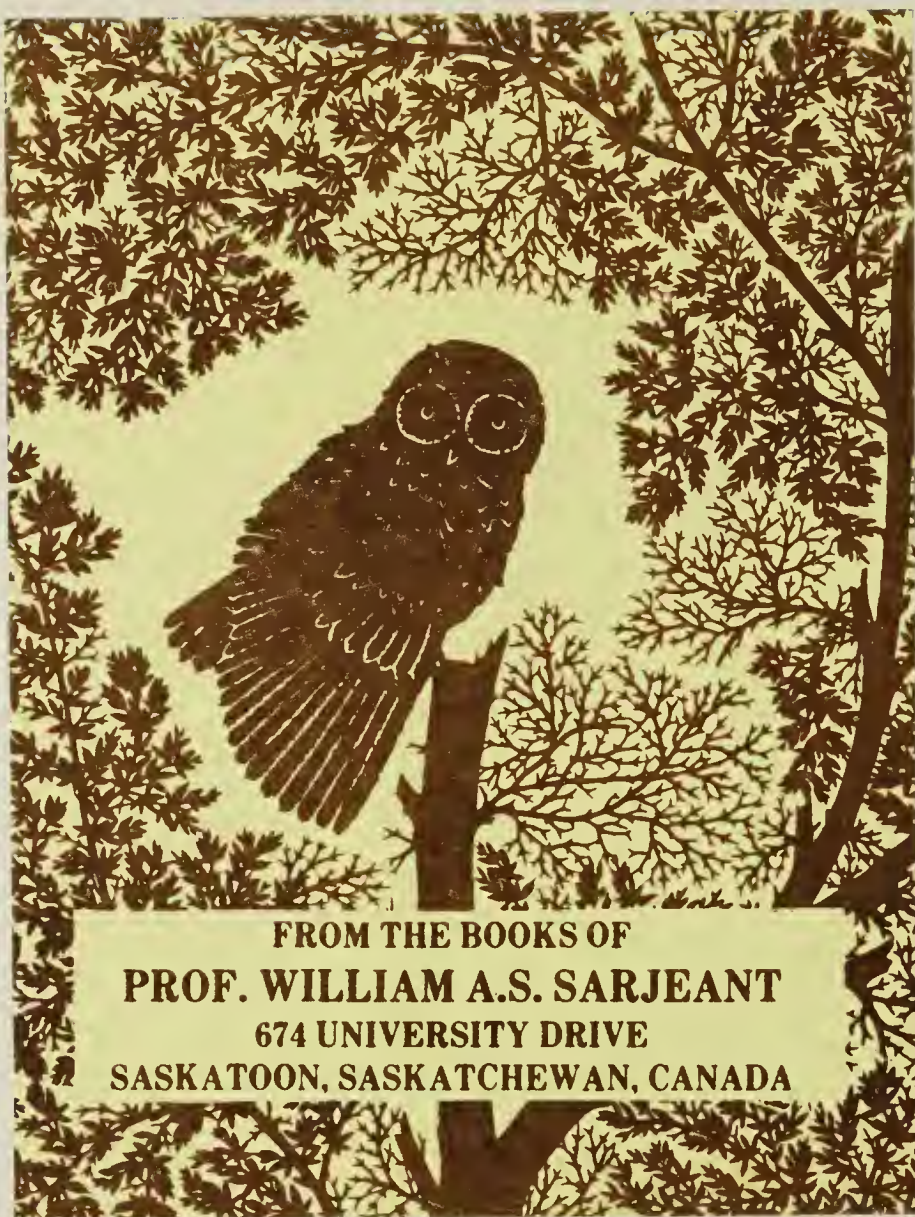


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The

BLUE JAY

A JOURNAL OF NATURAL HISTORY AND CONSERVATION
FOR SASKATCHEWAN AND ADJACENT REGIONS

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Snowy Owl

Photo by R. E. Gehlert,
Edmonton, Alberta

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Regina, Saskatchewan

NOT A HOUSE SPARROW

January 23, 1971 was a beautiful, bright winter day ideal for an escape from the frustrations and noise of city life. My escape that day was to the Moose Mountain Provincial Park and the excuse for the trip was threefold: to give tired nerves a rest; to see the winter birds there in view of Dr. Nero's preparation of a special publication on the birds of the park for the society; and a desire to see for myself how serious the deterioration of the environment in the park really was.

We arrived in the park shortly after dawn and did not leave till it was dark. In the course of the day we drove the main roads and wandered into the woods in search of birds. This was our tally: eleven Black-billed Magpie, twelve Black-capped Chickadee, five Hairy Woodpecker, three White-breasted Nuthatch, nine Ruffed Grouse, four Blue Jay, one Great Horned Owl and finally just outside the park on an open slope of the mountain in the lights of the car, twelve Snow Bunting. The Ruffed Grouse were particularly cooperative. They fed in the brush along the roadside and so close that we needed no field glasses. Occasionally one flew a few feet and landed about a foot from the top of a six-to-eight foot slender shrub. The shrub would immediately bend with the weight but with perfect balance the bird would keep its place and then reach to feed on buds near by.

There are some other birds that we expected to see (Bohemian Waxwing, grosbeaks, crossbills and redpolls among others) but examination of this winter's Christmas Bird Counts shows how rare these species are in southern Saskatchewan this year. We noticed one other thing. In a dawn-to-dusk search for birds, even while we munched our sandwiches, we did not see a House Sparrow. Nor did we catch sight of Starling, Rock Dove, Gray Partridge or Ring-necked Pheasant—all introduced species. Evidently this park is still performing one of its functions. It is a natural place where wild things *native* to Saskatchewan may live and it is a place where man can retreat temporarily from the artificial environment of the city.

Some people may think it unbecoming or unmanly to enjoy birds. Many are completely unstirred by the form of a shrub or tree. They have no curiosity about the identity or life-history of plants or animals and are especially unresponsive to the natural scene during the winter. To me the Moose Mountain Provincial Park is particularly attractive in winter for one can look through the woods and clearly see the form of the land with all its different habitats; the few roads through the park follow the contour of the landscape.

There were mammals in the park, too, and on this day we saw twelve White-tailed Deer, two or three Porcupine, two Red Squirrel, one Snowshoe Hare and several snow-covered lodges of the Beaver. There was evidence of the Coyote and we felt it important to know that in this park there are coyotes and deer.

I could stop here and give nothing but praise for the park for it is a good retreat. Yet it could be better. For a large part of our day we heard the hideous noise of the snowmobile. True, there were remoter parts where we did not hear the sound, but track marks testified to their presence and we dreaded the moment when one would appear to frighten the birds and mammals. One wide, ugly road within the park boundary led to a huge, cleared area given over to storage tanks, construction equipment and gas or oil wells. It was obviously impossible to escape for long the grim reminder of the rapid depletion of our natural resources.

The snow was white, the woods were beautiful and the environment seemed nearly natural but many questions nagged at me. Are we giving enough protection to our wildlife and our natural areas? Do we know how to appreciate these natural resources? Do we understand what damage the snowmobile can do as it disturbs animals, breaks down plants and compacts the snow over mice and grass? Certainly, we should use our parks in winter just as we do in summer but it is essential that large areas be kept quiet and unexploited.

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WHO IS RESPONSIBLE FOR POLLUTION?

by R. D. Symons, Siltou



"... the leaving of untidy camps . . . and all those acts which mark the intruder who does not understand the quietude and awesomeness of unspoiled creation".—R. D. Symons, 1970. *The Broken Snare*, p. 218.

Many of us are today frightened about pollution. And we talk — endlessly.

We talk about the big industrial companies and their practices. We ask for laws to punish Big Business. We ask for protection for our environment. All this is good, but it does not go far enough in a practical way.

We forget that our own desire to possess all the new things which industry offers us is the one and only reason which induces these companies to carry on their operations.

The responsibility, moreover, rests directly on every *small* industry, every city, town and village, and finally on our own selves as individuals. Every person who demands *more* of everything than he actually requires contributes to pollution. Every child who throws away his candy-wrapper, every woman who discards a facial tissue on the street, every man who throws a bottle on the roadside is equally guilty, and surely in justice should be as liable to correction as any industry which we decry as “irresponsible”. That such small acts, taken individually, might not feasibly be corrected by law does not in the least alter the fact that an act of pollution has been committed.

Surely, if we feel so strongly, we could at least discipline ourselves (never mind our neighbours) to break these habits. Such a regard for cleanliness and good manners would, I am sure, be catching, and others would follow suit.

If we can today go to the moon, surely . . . ?

Take a look around for a change, after reading in the papers about the shortcomings of the industrialists. Watch the farmers baling hay on the verges of No. 1 Highway. Talk to them. They will tell you of the bottles which wreck machinery and cut the mouths of cattle.

Look at the sidewalk opposite the Grey Nuns’ Hospital. Look at the

street and sidewalk in front of any small grocery store. Look at the shrubbery bordering your lawn as the snow melts and see the rubbish that has gathered there. Look at the mess in the school yards.

Watch a group of intelligent business or professional people at a convention in a lovely garden setting. See them taking polaroid photographs and watch what they do with the wrappers. One would think that pockets and bags had never been invented.

And having looked at these things, let us promise ourselves that we shall never again discard a bottle, a paper, a facial tissue, or a wrapper or box of any kind, in a public place, nor allow our children to do so.

And then, friends, let us shout and scream, march with banners, storm the legislatures and *demand* — with a clear conscience — that pollution shall be punished.

Editor’s Note: The following quotation from another author deeply concerned about today’s ecology reads as follows:

“Something will have gone out of us as a people if we ever let the remaining wilderness be destroyed; if we permit the last virgin forests to be turned into comic books and plastic cigarette cases; if we drive the few remaining members of the wild species into zoos or to extinction; if we pollute the last clean air and dirty the last clean streams and push our paved roads through the last of the silence, so that never again will Canadians be free in their own country from the noise, the exhausts, the stinks of human and automotive waste, and so that never again can we have the chance to see ourselves single, separate, vertical and individual in the world, part of the environment of trees and rocks and soil, brother to the other animals, part of the natural world and competent to belong in it”.—Wallace Stegner.

GEORGE HARRISON TURNER, M.D., 1877-1970

by **C. D. Bird**, Department of Biology, University of Calgary, Calgary

It was with real sorrow that I learned of the passing away in hospital on September 13 of Dr. George Turner. A medical practitioner for most of his life he was also a knowledgeable and gifted botanist who collected extensively in central Alberta.

Dr. Turner was born on June 26, 1877, in Baie Verte, New Brunswick. He attended Public School there from 1883 until 1894 and then went to Mt. Allison University in Sackville, New Brunswick, where he obtained a B.A. degree in 1899. He received the M.D. C.M. degree from the Faculty of Medicine at McGill University in 1903 after which he interned for a year at the Royal Victoria Hospital in Montreal. He moved to Fort Saskatchewan, Alberta, in 1904 and practised medicine there until 1967, carrying on a limited practice even after his retirement. His wife was Florence

Mary Yould, whom he married in 1906 and who died in 1949.

His interest in botany began while he was attending Mt. Allison University where he was especially influenced by Professor Andrews. In Alberta he early got in touch with Dr. W. C. McCalla whose enthusiasm and proficiency were a great inspiration to him. Other Alberta botanists with whom he had close contact were A. H. Brinkman of Craigmyle and Dr. E. H. Moss of the Department of Botany at the University of Alberta in Edmonton. His vascular plant studies were encouraged by Mr. Herbert Groh, Dr. H. A. Senn and Dr. B. Boivin at the Central Experimental Farm in Ottawa and also by Dr. E. Porsild at the National Museum of Canada. A friend of long duration was Dr. F. J. Hermann of the U.S. Forest Service in Washington, D.C.



Photo by C. D. Bird

Dr. G. H. Turner (left) and Dr. E. H. Moss discussing botany on a field trip near Fort Saskatchewan, August 13, 1960.

In recent years Dr. Turner received help on identifications in the course of corresponding with the bryologists Dr. H. Crum, Dr. H. Conard and Dr. F. J. Hermann, and the lichenologists Dr. J. W. Thomson, Dr. M. E. Hale, Jr. and A. W. Herre. He was noted among his botanical correspondents for his unstinting helpfulness for often going to great lengths in his field work to procure research materials for them.

I had close contact with Dr. Turner from 1960 until he died. A particularly memorable occasion was a field trip with him and Dr. E. H. Moss on August 13, 1960, to a number of boggy areas near Fort Saskatchewan.

Dr. Turner deposited his original collection of about 12,000 specimens in Alberta herbaria with the vascular plants going to the University of Alberta and his nonvascular plants, mainly lichens and bryophytes, going to the University of Calgary. Extensive numbers of duplicate specimens

have been deposited at the Central Experimental Farm and the National Museum of Canada in Ottawa, and at the University of Wisconsin and the University of Michigan.

Dr. Turner is survived by two daughters, Mrs. W. A. Johnstone and Mrs. H. R. McIntyre, and by five grandchildren.

Publications of G. H. Turner

Turner, G. H. 1947. Alpine plants in the Pigeon Lake district of Alberta. *Can. Field-Naturalist*, 61:126.

Turner, G. H. 1949. Plants of the Edmonton district of the Province of Alberta. *Can. Field-Naturalist*, 63: 1-28.

Turner, G. H. 1949. *Salix petiolaris* in the Edmonton district. *Can. Field-Naturalist*, 63:82-84.

Moss, E. H., and G. H. Turner. 1961. Bryophytes from the Edmonton region, Alberta. *Can. J. Botany*, 39: 1177-1193 .



Photo by Mrs. W. A. Johnstone

Dr. G. H. Turner in his garden in Fort Saskatchewan, Alberta, 1968.

TWENTY-NINTH ANNUAL SASKATCHEWAN CHRISTMAS BIRD COUNT, 1970

Compiled by **Mary Houston**, 863 University Drive, Saskatoon

Observers in 35 areas (33 in 1969), plus one in the Northwest Territories, participated in the 1970 Saskatchewan Christmas bird count. Sixty species of birds were observed on count days, with three additional seen, not on a count day, but during the period between December 22 and January 3. A Red-shafted Flicker reported from Regina, added one new species to the all-time list, bringing the total for the 29 years of Saskatchewan counts to 114 species (with six additional).

An unusual number of Robins was recorded throughout the province. Although they have been reported in 21 of the 29 years, they have never been so widespread or so numerous. Nine of the 34 localities reported Robins during count period. In Saskatoon four of the 10 parties reported Robins—one group sighting a flock of 30. There is certainly no shortage of berries for them.

The noticeably low species were Pine Grosbeak, reported in only six areas and the usually ubiquitous Redpolls, reported from only four. White-winged Crossbills were seen only at Cumberland House, and Red Crossbills were not reported at all.

ABERDEEN-SMUTS, Jan. 2; 56 miles by car in 3½ party hours; 3 species, 359 individuals. Black-billed Magpie, 16; House Sparrow, 102; Snow Bunting, 241.—Dr. and Mrs. J. B. Gollop.

BORDEN BRIDGE, Dec. 27; 30 miles by car and 1 mile on foot in 3 hours; temp. 2°, clear; 7 species, 443 individuals. Ruffed Grouse, 3; Sharp-tailed Grouse, 8; Blue Jay, 1; Black-billed Magpie, 10; Black-capped Chickadee, 4; House Sparrow, 16; Snow Bunting, 401.—John and Stanley Shadick.

BROADVIEW, Dec. 30; 36 miles by car and 3 miles on foot in 4 hours; temp. 20°; wind S.W. 15 mph; 9 species, 243 individuals. Sharp-tailed

Grouse, 11; Gray Partridge, 16; Great Horned Owl, 1; Hairy Woodpecker, 2; Downy Woodpecker 3; Black-billed Magpie, 4; Black-capped Chickadee, 11; House Sparrow, 66; Snow Bunting, 129. (Add: Northern Shrike, 1, Jan. 1.)—David Chaskavich and Donald Weidl.

BUFFALO LAKE, Eastern end, Dec. 29; 12 miles on foot and 4 miles by car; temp. 25°; wind 15 mph; 3 species, 15 individuals. Black-billed Magpie, 3; Black-capped Chickadee, 10; Golden-crowned Kinglet, 2.—John Horton, Pat Kern, David Robinson, (Leith Knight, compiler).

CRESTWYND, Dec. 27; ½ mile on foot and 25 miles by car; temp. -8°; wind ESE 18 mph; cloudy; 7 species, 264 individuals. Sharp-tailed Grouse, 1; Rock Dove, 20; Snowy Owl, 1; Short-eared Owl, 1; Black-billed Magpie, 1; House Sparrow, 15; Snow Bunting, 225. John Horton, David Robinson, (Leith Knight, compiler).

CUMBERLAND HOUSE, Jan. 2; 6 miles on foot in 5½ party hours and 27 miles by car in 12 party hours; temp. 6° to 10°; wind NW 10-15 mph; overcast, 13 inches of snow; 21 species, 272 individuals. Goshawk, 3; Ruffed Grouse, 1; Willow Ptarmigan, 3; Sharp-tailed Grouse, 19; Great Horned Owl, 1; Hairy Woodpecker, 1; Downy Woodpecker, 1; Gray Jay, 1; Blue Jay, 5; Black-billed Magpie, 13; Common Raven, 21; Black-capped Chickadee, 18; Red-breasted Nuthatch, 2; Bohemian Waxwing, 11; House Sparrow, 50; Brewer's Blackbird, 1; Evening Grosbeak, 4; Pine Grosbeak, 25; White-winged Crossbill, 6; Snow Bunting, 65.—Vern Gunnlaugson, Dr. and Mrs. Stuart Houston (compilers), David and Donald Houston, Stanley D. Riome, Stanley J. Shadick.

DILKE, Dec. 28; 82 miles by car in 4 hours; temp. 10°; wind SSE 5-10 mph; sunny; 18" snow heavily drifted; 9

species, 211 individuals. Sharp-tailed Grouse, 6; Gray Partridge, 37; Rock Dove, 16; Great Horned Owl, 1; Snowy Owl, 1; Black-billed Magpie, 30; Northern Shrike, 1; House Sparrow, 118; Snow Bunting, 1. (Add: Horned Lark, Dec. 23, 25, 26.)—Boswell Belcher (compiler), Margaret Belcher, Mr. and Mrs. S. R. Belcher.

ERINFERRY, Dec. 26; 4 species, 16 individuals. Hairy Woodpecker, 2; Blue Jay, 6; Black-capped Chickadee, 5; Evening Grosbeak, 3. (Add: Great Horned Owl, 2, Jan. 1; Snowy Owl, 1; Dec. 30; Downy Woodpecker, 1, Jan. 1; Black-billed Magpie, 3, Dec. 29; Raven, 9, Dec. 29; Bohemian Waxwing, flocks, Jan. 2.)—Mrs. E. A. Dodd.

FORT QU'APPELLE, Dec. 26; temp. 15°; calm; 10 inches of snow; 12 species, 47 individuals. Ruffed Grouse, 1; Sharp-tailed Grouse, 4; Gray Partridge, 8; Snowy Owl, 1; Hairy Woodpecker, 1; Downy Woodpecker, 1; Blue Jay, 5; Black-billed Magpie, 1; Black-capped Chickadee, 2; White-breasted Nuthatch, 1; House Sparrow, 21; Common Grackle, 1. (Add: Mallard 1, Jan. 2; Ring-necked Pheasant, 4, Jan. 2; Rock Dove, 3, Dec. 29; Robin, 4, Dec. 29; Bohemian Waxwing, 7, Jan. 1; Northern Shrike, 1, Dec. 22; Snow Bunting, 500, Dec. 29.)—Dr. and Mrs. G. D. Barnett, E. Manley Callin (compiler), Richard Carter, Mr. and Mrs. Errol Cochrane, Mr. and Mrs. Bernie deVries, Mr. and Mrs. Wm. Gray, Stanley Harrison, Ron Hooper, Winnifred and Geoffrey Louks, Jack and Jay Lowe, Dick Nevard, John Norman, Horace Reed, Mr. and Mrs. S. P. Regan, Joe Rumancik.

HEPBURN, Dec. 28; 30 miles by car; temp. -10° to above zero; 2 species, 25 individuals. Gray Partridge, 15; Black-billed Magpie, 10. (Add: Snow Bunting, 32, Dec. 29 and 31.)—Philip Siemens.

HUDSON BAY, Dec. 27; 20 miles by car in 2½ hours; temp. -25°; wind W 5 mph; clear; 6 species, 300 individuals. Black-billed Magpie, 5; Com-

mon Raven, 4; Northern Shrike, 1; House Sparrow, 5; Slate-colored Junco, 1; Snow Bunting, 284. (Add: Evening Grosbeak, 4, Jan. 3; Pine Grosbeak, 25, Dec. 28.)—Eldon and Gwen Thorson.

INDIAN HEAD, Dec. 27; 30 miles by car in 1 hour and 6 miles on foot in 5 hours plus 3 miles by horse and sleigh in 1½ hours and around 4 farm yards for 1 hour; temp. -5° to +5°; wind SE 10 to 20 mph; clear; 30 inches of snow; 14 species, 346 individuals. Mallard, 40; Ruffed Grouse, 1; Sharp-tailed Grouse, 8; Gray Partridge, 11; Rock Dove, 32; Great Horned Owl, 1; Hairy Woodpecker, 4; Downy Woodpecker, 6; Blue Jay, 2; Black-billed Magpie, 22; Black-capped Chickadee, 36; Robin, 1; House Sparrow, 175; Snow Bunting, 7.—Beth Copithorn, Ian Gray, Richard Gray, Bobby Jewitt, Anna Macial (members of the Indian Head 4H Junior Sportsman Club), Carol Beaulieu, Janet Gray (club leaders), Mr. and Mrs. Jim Lang, Brian Scott, Glen Scott, Elaine Scott, Lorne Scott (compiler), Reg. Scott, Gary Seib, Mr. and Mrs. Fred Skinner, Gordon Willerth, Jackie Willerth.

KELVINGTON, Jan. 2; 4 miles by car and around the farmyard in 1½-2 hours; temp. -2°; dull and cloudy; 2 feet of snow; 8 species, 151 individuals. Ruffed Grouse, 2; Sharp-tailed Grouse, 1; Downy Woodpecker, 1; Black-billed Magpie, 10; Black-capped Chickadee, 5; Bohemian Waxwing, 45; Starling, 2; Snow Bunting, 85.—Dianne Sloan.

KENASTON, Dec. 31; 1½ hours by truck about the farm area, and half mile about the field and the yard; temp. 5° to 17°; clear; calm; 12" of snow; 3 species, 57 individuals. Gray Partridge, 27; Black-billed Magpie, 5; House Sparrow, 25. (Add: Sharp-tailed Grouse, 16, Dec. 29; Rock Dove, 8, Dec. 23; Great Horned Owl, 1, Dec. 20; Horned Lark, Dec. 16, Jan. 2; Snow Bunting, 3000, Dec. 27.)—Lawrence Beckie and family.

LEADER, Dec. 27; 3 hours about the farm; temp. 20°; clear and calm; 14 inches of drifted snow; 7 species, 67 individuals. Sharp-tailed Grouse, 12; Ring-necked Pheasant, 24; Gray Partridge, 8; Black-billed Magpie, 5; Black-capped Chickadee, 1; Bohemian Waxwing, 15; House Sparrow, 2. (Add: Snow Bunting, 100, Dec. 28.)—Daisy D. Meyers.

MONTREAL LAKE-LARONGE, Jan. 3; 100 miles by car in 2 hours; temp. 0°; wind NW 10 mph; partly cloudy with occasional snow flurries; 4 species, 100 individuals. Great Horned Owl, 1; Downy Woodpecker, 1; Common Raven, 91; Black-capped Chickadee, 7. (Add: Black-billed Magpie, 4; Snow Bunting, 47.)—Agatha Harder, Margaret Siemens (compiler), Phyllis Siemens.

MOOSE JAW, Dec. 26; 71 miles by car and 11 miles on foot; temp. 12° to 20°; clear and calm; 6 inches of snow on level; 11 species, 1110 individuals. Sharp-shinned Hawk, 1; Sharp-tailed Grouse, 8; Ring-necked Pheasant, 3; Gray Partridge, 25; Rock Dove, 289; Blue Jay, 1; Black-billed Magpie, 51; Black-capped Chickadee, 4; Bohemian Waxwing, 31; Starling, 106; House Sparrow, 591. (Add: Pigeon Hawk, 1, Dec. 24; Snowy Owl, 1, Dec. 31.)—John Horton, Pam Kern, Pat Kern, Leith and Cy Knight, Peter Muirhead, Murdoch Nelson, David Robinson (Leith Knight, compiler).

NAICAM, Dec. 24; 8 miles by snowmobile; temp. 0°; 6 species, 46 individuals. Ruffed Grouse, 6; Sharp-tailed Grouse, 17; Hairy Woodpecker, 1; Black-billed Magpie, 3; Black-capped Chickadee, 4; House Sparrow, 15 (Add: Gray Partridge, 2, Dec. 21.)—Ronald Jensen.

NIPAWIN, Dec. 27; 5 hours on foot and 54 miles by car; temp. -26°; wind N 10 mph; 17 species, 262 individuals. Sharp-tailed Grouse, 5; Rock Dove, 7; Pileated Woodpecker, 1; Hairy Woodpecker, 1; Downy Woodpecker, 3; Gray

Jay, 2; Blue Jay, 3; Black-billed Magpie, 13; Common Raven, 6; Black-capped Chickadee, 3; White-breasted Nuthatch, 2; Robin, 1; Bohemian Waxwing, 100; House Sparrow, 19; Evening Grosbeak, 7; Pine Grosbeak, 10; Snow Bunting, 82. (Add: Pigeon Hawk, 1, Dec. 22; Willow Ptarmigan, 2, Jan. 3; Gray Partridge, 6, Dec. 28.)—Vern Gunnlaugson Walter and Billy Matthews, Stan Riome.

OUTLOOK Dec. 29; 70 miles by car; temp. -25°; sunny; about 12" snow; 6 species, 1018 individuals. Gray Partridge, 8; Rock Dove, 4; Horned Lark, 1; Black-billed Magpie, 4; House Sparrow, 1; Snow Bunting, 1000.—Harold Kvinge.

PIKE LAKE, Dec. 31; 3 miles on foot and 54 miles by car in 7 party hours; temp. 6° to 13°; wind SE 3 mph; partly cloudy; 13 species, 376 individuals. Sharp-tailed Grouse, 8; Ring-necked Pheasant, 4; Gray Partridge, 26; Rock Dove, 7; Hairy Woodpecker, 3; Downy Woodpecker, 3; Blue Jay, 6; Black-billed Magpie, 126; Black-capped Chickadee, 31; Robin, 28; Bohemian Waxwing, 6; House Sparrow, 120; Snow Bunting, 8. (Add: Short-eared Owl, 1, Jan. 2; Common Crow, 1, Jan. 2.)—Dr. and Mrs. J. B. Gollop, Mrs. L. Hoyte, J. F. Roy, J. A. Wedgwood.

PRINCE ALBERT, Dec. 29; at feeder in back yard 4 miles north of Prince Albert; 9 species, 134 individuals. Hairy Woodpecker, 2; Downy Woodpecker, 2; Blue Jay, 12; Black-billed Magpie, 2; Common Raven, 3; Black-capped Chickadee, 12; Bohemian Waxwing, 80; Evening Grosbeak, 18; Pine Grosbeak, 8 (Add: Sharp-tailed Grouse, Dec. 23; Snow Bunting, Dec. 23.)—Mr. and Mrs. A. O. Aschim.

RAYMORE, Dec. 29; 6 miles on foot in 3 hours and 9 miles by car in 1 hour; temp. 20°; wind E 10 to 15 mph; clear and sunny; 12 inches snow on ground; 8 species, 87 individuals. Rock Dove, 21; Great Horned Owl, 2; Snowy Owl, 1; Downy Woodpecker, 1; Black-billed

Magpie, 14; Black-capped Chickadee, 9; Bohemian Waxwing, 12; House Sparrow, 27. (Add: Ruffed Grouse, 10, Jan. 1; Sharp-tailed Grouse, 9, Dec. 31; Gray Partridge, 10, Dec. 23; Hairy Woodpecker, 1, Dec. 24; Robin, 4, Dec. 22; Pine Grosbeak, 1, Dec. 22, Dec. 25; Common Redpoll, 1, Dec. 26; Snow Bunting, 70, Dec. 23.)—Craig Cameron, Wayne Harris (compiler).

REGINA, Dec. 26; 375 miles by car in 24 hours, and 32 miles on foot in 20 hours; temp. 0° to 15°; wind NW 5-15 mph; sky clear; 30" snow cover; 33 species, 3293 individuals. Eared Grebe, 1; Mute Swan, 7; Whistling Swan, 5; Canada Goose, 600; Mallard, 400; Pintail, 1; Redhead, 4; Canvasback, 4; Lesser Scaup, 6; Common Goldeneye, 11; Ruddy Duck, 5; Gray Partridge, 37; American Coot, 4; Rock Dove, 297; Great Horned Owl, 1; Snowy Owl, 7; Yellow-shafted Flicker, 3; Red-shafted Flicker, 1; Hairy Woodpecker, 1; Downy Woodpecker, 2; Horned Lark, 2; Black-billed Magpie, 59; Black-capped Chickadee, 10; Robin, 2; Bohemian Waxwing, 19; Cedar Waxwing, 30; Northern Shrike, 3; Starling, 48; House Sparrow, 1400; Red-winged Blackbird, 1; Brewer's Blackbird, 1; White-throated Sparrow, 1; Snow Bunting, 320.—Gary Anweiler, Jessie Bailey, Fred Bard, Margaret Belcher, Al Binnie, Betty Binnie, Greg Bobbitt, Iola Crouse, Betty Cruickshank, Mr. Bryn Davies, Mrs. Bryn Davies, Wayne Davis, Dan de Vlieger, Lucy Eley, Doug Gilroy, Jackie Hamel, Jim Hines, Hugh Jowsey, Jim Jowsey, Shirley Jowsey, Shirley Larmour, George Ledingham, Margot Lowe, Helen Morrison, Sally Moss, Connie Pratt, Bob Rafuse, Maureen Rever, Joe Roberts, Lorne Scott (compiler), Grace Tubello, Elisabeth Wagner, Jeanie Wagner, Billy Wallace, Holly Wallace, W. J. Wallace, Janie Wilhelm.

SASKATOON, Dec. 26; 251 miles by car in 40 hours and 25 miles on foot in 23½ hours; temp. 3° to 13°; wind W 11 to 0 mph; clear; 9 inches of snow; 28 species, 6891 individuals. Mallard, 25; American Widgeon, 1;

Canvasback, 2; Common Goldeneye, 10; Pigeon Hawk, 1; Ruffed Grouse, 2; Sharp-tailed Grouse, 25; Ring-necked Pheasant, 5; Gray Partridge, 532; Rock Dove 1133; Great Horned Owl, 3; Snowy Owl, 4; Yellow-shafted Flicker, 5; Hairy Woodpecker, 5; Downy Woodpecker, 7; Horned Lark, 1; Blue Jay, 25; Black-billed Magpie, 262; Black-capped Chickadee, 46; Robin, 44; Bohemian Waxwing, 257; Cedar Waxwing, 50; Northern Shrike, 2; Starling, 17; House Sparrow, 4333; Hoary Redpoll, 1; Common Redpoll, 3; Snow Bunting, 90.—Mark Abley, Michael Bantjes, Rod Bantjes, Bob Besant, Jeff Besant, Joan Besant, Bernard Bisha, Ed Bisha, Raymond Bisha, Hans Blokhoel, Herman Boerma, Philip Boerma, Ricky Buchner, Pern Cordery, Ewen Coxworth, Morley Coxworth, Geoff Galloway, Muriel Galloway, Marie Gillespie, J. B. Gollop, M. F. Gollop, Arnie Guenther, Scott Hale, Bert Hardy, Dr. C. J. Houston, David Houston, Donald Houston, Mary Houston, Stuart Houston, Grev. Jones, Caroline Kindrachuk, Jeff Krolik, Mrs. J. McRobbie, Wm. Nickel, David Nowosad, J. Frank Roy, John Shadick, Stan Shadick, James A. Slimmon, Alan R. Smith, Laura Smith, Tom Smith, Jas. A. Wedgwood, Jarrell Wenger.

SKULL CREEK, Dec. 26; 13 species, 176 individuals. Golden Eagle, 1; Sharp-tailed Grouse, 21; Ring-necked Pheasant, 4; Gray Partridge, 5; Rock Dove, 8; Great Horned Owl, 1; Hairy Woodpecker, 4; Downy Woodpecker, 3; Black-billed Magpie, 40; Black-capped Chickadee, 6; House Sparrow, 21; Common Redpoll, 50; Snow Bunting, 12.—Cindy and Jim Benneto, Henry Borman, Austin Drever, Johnny Drever, Dorothy Ecclestone, Phyllis Flaig, Robert, Betty and Patti Mann, Mrs. S. A. Mann (compiler), Helen and Ray Schuler, Peter Swain.

SPIRIT LAKE, Jan. 3; 4 miles in 2½ hours on foot and 53 miles in 3½ hours by car; temp. -12° to 5°; wind WNW 15 mph; clear; 14 inches of snow; 11 species, 324 individuals. Ruffed Grouse, 2; Rock Dove, 4; Great Horned Owl 1;

Snowy Owl, 1; Pileated Woodpecker, 1; Hairy Woodpecker, 3; Downy Woodpecker, 6; Black-billed Magpie, 8; Black-capped Chickadee, 13; House Sparrow, 105; Snow Bunting, 180. (Add: Robin, 1, Dec. 23 through 27; Bohemian Waxwing, 1, Jan. 2.)—Wm. Anaka, Mrs. Gunn, Joyce Gunn, Frank Switzer.

SQUAW RAPIDS-NIPAWIN, Dec. 26; 96 miles by car; temp. 0°; wind N 10 mph; 9 species, 610 individuals. Mallard, 2; Common Goldeneye, 11; Bald Eagle, 2; Snowy Owl, 1; Hawk Owl, 1; Black-billed Magpie, 10; Common Raven, 23; Bohemian Waxwing, 30; Snow Bunting, 530.—Vern Gunnlaugson, Paul Riome, Stan Riome.

TUBEROSE, Dec. 26; temp. 25° to 30°; clear, sunny; no wind; 2 species. Gray Partridge, flock; Snowy Owl, 1.—Cliff Matthews.

VALLEY CENTRE, Dec. 27; 77 miles by car in 3½ hours and 2 miles on foot in 1½ hours; temp. 12°; clear, sunny calm; 8" snow; 8 species, 1017 individuals. Sharp-tailed Grouse, 13; Ring-necked Pheasant, 2; Gray Partridge, 39; Rock Dove, 71; Great Horned Owl, 1; Black-billed Magpie, 75; House Sparrow, 364; Snow Bunting, 452. (Add: Peregrine Falcon, 1, Dec. 31; Snowy Owl, 1, Dec. 26 and 31.)—Blaine Lacina, Don, Ron and Wayne Renaud.

VAL MARIE, Dec. 24; 35 miles by vehicle and 2 on foot along the Frenchman River; 5 species, 128 individuals. Sharp-tailed Grouse, 1; Ring-necked Pheasant, 1; Horned Lark, 25; Black-billed Magpie, 1; House Sparrow, 100. (Add: Golden Eagle, 1, Dec. 26; Sage Grouse, 2, Dec. 27; Gray Partridge, 5, Dec. 27; Snowy Owl, 1, Dec. 27; Short-eared Owl, 2, Jan. 2.)—J. David Chandler.

WAUCHOPE, Dec. 26; 4 miles by car and 3½ miles on foot in 4½ hours plus short observations at the feeding station; temp. 29° max. and 18° min.;

clear and sunny; wind light; 7 inches of snow; 8 species, 378 individuals. Rock Dove, 16; Hairy Woodpecker, 3; Downy Woodpecker, 1; Black-billed Magpie, 1; Black-capped Chickadee, 6; Robin, 1; House Sparrow, 100; Snow Bunting, 250. (Add: Ruffed Grouse, 1, Dec. 31; Sharp-tailed Grouse, 15, Jan. 2.)—Dale Hjertaas.

WELLINGTON LAKE, (25 miles northwest of Eldorado, Sask.) Dec. 22; 6 species, 25 individuals. Willow Ptarmigan, 15; Hairy Woodpecker, 2; Black-backed Three-toed Woodpecker, 1; Gray Jay 6; Common Raven, 3; Black-capped Chickadee, 2. (Add: Common Redpoll, 25, Dec. 30.)—Mrs. E. A. Middleton.

YORKTON, Dec. 26; 8 miles in 8 hours on foot, and 107 miles in 4 hours by car; temp. 13°; wind NW 20 mph; clear with ground drift; 18" snow heavily drifted on fields; 8 species, 513 individuals. Pigeon Hawk, 1; Sharp-tailed Grouse, 11; Rock Dove, 25; Black-billed Magpie, 12; Black-capped Chickadee, 1; House Sparrow, 175; Pine Grosbeak, 1; Snow Bunting, 287. (Add: Gray Partridge, 2, Dec. 27.)—Grant Black, Harry and Keith Monette, Frank Switzer (compiler).

BANGOR (This report was received late and without a date). 8 species, 140 individuals. Ruffed Grouse, 2; Hairy Woodpecker, 1; Downy Woodpecker, 1; Gray Jay, 1; Black-billed Magpie, 3; Black-capped Chickadee, 4; House Sparrow, 3; Snow Bunting, 125. Mrs. A. Thompson.

FORT SMITH, N.W.T., Dec. 28; 65 miles by car in 3¾ hours plus around the town of Fort Smith; temp. -10°; wind E. 5 mph; mostly sunny with some light overcast; 8" snow; 5 species, 115 individuals. Rock Dove, 12; Gray Jay, 2; Common Raven, 98; Boreal Chickadee, 1; White-winged Crossbill, 2. (Add: Gyrfalcon, 1, immature, Dec. 25.)—Ernie, Elsie and Pamela Kuyt.

SECOND SASKATCHEWAN RECORD OF THE RUFF

by J. F. Roy, Saskatoon

On May 8, 1965, Frank Brazier, Regina, sighted and later collected the first Ruff recorded in Saskatchewan (Brazier, 1965). This Eurasian shorebird, whose movements are the subject of considerable speculation, occurs fairly regularly in Eastern North America in both spring and fall. In 1963, for instance, there were 30 reports of this species in *Audubon Field Notes* (Peakall, 1965). The bird is a rarity west of the Mississippi, Frank Brazier's record being the first in ornithological literature (if one discounts occasional Siberian birds noted on the Alaska coast). To the west its nearest known breeding range is Northern Siberia, east to Lena, Kolyma (Rivers) and the New Siberian Islands (Novosibirskije), and on the east, Western France. It migrates throughout Europe and Asia, the regular western limits of its migration being N.W. England, France, Spain, Portugal and West Africa, while in the east it occurs regularly in Japan, China and Borneo. It is accidental in Iceland, and on the Bering and Pribilof Islands (Jourdain).

On May 19, 1970, Dr. Ron Bremner, Mark Abley and I were making one of our regular noon hour visits to the sloughs immediately north of the Saskatoon airport. While scanning the south shore of the slough nearly a quarter of a mile distant, I spotted what appeared to be a dark pigeon wading in the shallow water. This unusual behaviour made us wonder just what kind of bird we were looking at. Moving closer, we realized that the "pigeon" was a handsome shorebird with a black mantle, a dark brown, mottled back, and a strong black line extending down the rump and the centre of its tail. Prominent white patches on either side of the tail and brilliant orange legs marked it as a species completely foreign to all of us. The bird was tame, allowing approach

within 30 yards, as it walked casually in and out of the water and swam occasionally in the manner of a phalarope. After watching it closely for ten minutes we returned to the city to phone Dr. Bernard Gollop, Canadian Wildlife Service, and Dr. Stuart Houston. Mark Abley was able to lead them, in the company of Mary and Stanley Houston, back to the spot where the bird was still feeding. Dr. Houston confirmed our tentative identification. It was the second Ruff for Saskatchewan and a new addition to the Saskatoon bird list. Positive identification, by the way, was made only after consulting Lekagul's *Bird Guide of Thailand*!

We discovered later that Bill Richards had first spotted the Ruff (almost certainly the same bird) at the slough on May 9. He saw it there again on May 16. Uncertain of its identity and unaware of its rarity, he had described the bird carefully in his field notes, calling it a "confusing spring wader." While he had watched it, it had not displayed the large erectile ruff which we were fortunate enough to observe. This species, frequently found in the company of Yellowlegs, was alone while we studied it. Following an unsuccessful attempt to collect it, the Ruff was not seen again.

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THE IRREGULAR OCCURRENCES OF THE DICKCISSEL IN ALBERTA, MANITOBA AND SASKATCHEWAN

by **Spencer G. Sealy**, Museum of Zoology, University of Michigan,
Ann Arbor, Michigan.

The Dickcissel (*Spiza americana*) has long interested ornithologists particularly because of its extreme irregularity of appearance and marked fluctuations in numbers. Gross (1968:159) stated that "The dickcissel is very erratic in its distribution. Its numbers, even in the centre of its nesting range, may fluctuate greatly from year to year. A locality may have an abundance of dickcissels, only to have them practically disappear after a few years." Dickcissel distribution in Wisconsin varies considerably from one summer to the next, so that observers there speak of a certain year as a "high" or "low" one for these birds (Taber, 1947: 39).

Available information indicates that Dickcissels also occur and breed at irregular intervals in Manitoba and Saskatchewan; there is only one record of occurrence in Alberta but no evidence of its breeding there exists.

Summary of Dickcissel Records

The records of occurrence of the Dickcissel in Saskatchewan and Alberta and Manitoba are summarized in Tables 1 and 2, respectively, and are plotted on a map in Figure 1. The earliest record of this species in Saskatchewan is a male taken from a group of three pairs on June 20, 1923, at Old Wives Lake. It is probable that these pairs were breeding there that year. Dickcissels were not seen in that area again until 1933 when H. McCrae saw and heard one individual; it was apparently not ascertained whether it was breeding there that year.

From Table 1 it is evident that the years 1933 and 1934 were "high" years for Dickcissels in Saskatchewan. It was in these two years that this species was recorded breeding for the first time near Regina. The sight and breed-

ing records at Regina during these two years have been detailed by Belcher (1961:65) and summarized in Table 1. Other Saskatchewan records of the Dickcissel in 1933 and 1934 were obtained at Gainsborough, Imperial, Kedleston, and Nokomis. The breeding "colony" near Regina was not present in 1935 nor has there been one reported for that or any other area in the province up to the present date; subsequent to 1934, only sporadic observations of this species have been made in Saskatchewan.

In Manitoba, the first Dickcissel was collected near Portage la Prairie by G. E. Atkinson on June 14, 1897. According to Criddle (1921:135), Atkinson felt that this bird "was a straggler from the south, though the date at which it was taken would indicate that it was breeding in the neighborhood." The species was next observed about 1907 near Oak Lake by H. M. Laing, who showed P. A. Taverner an "easily recognizable photograph taken at the time of the bird in life" (Taverner, 1927:226). It was not until 1921, however, that nesting birds were encountered in Manitoba; a large colony was discovered in the Whitewater Lake - Boissevain area by Hoyes Lloyd and Taverner. Several specimens were collected there (Table 2). At Melita, N. Criddle and P. N. Vroom observed two males singing along the edge of a meadow; no nests were found but "from the fact that there were two or more males singing there," Criddle (1921:135) thought that it was safe to "conclude that the species breeds in the vicinity."

Only one record of this species has been obtained from Alberta; a singing male was collected near Walsh on June 14, 1940, by E. T. Jones. As we will see later, this male was probably seeking

suitable nesting habitat or was even on its breeding territory.

Discussion

The Dickcissel may be considered an "irruptive" species throughout much of its range. Udvardy (1969) describes "irruptions" as irregular wanderings; the species appears in areas in which it usually does not occur and propagate. It may or may not breed there, or it may return to its place of origin, depending upon the conditions it encounters. Nevertheless, an irruption may lead to the establishment of a population nucleus, where the species, the Dickcissel in this case, utilizes habitats where living conditions are temporarily favorable, but, for one reason or another, regularly become adverse.

The biology of the Dickcissel has been intensively studied by Zimmerman (1965; 1966a; 1966b; 1970;

others). This author's 1970 paper is particularly pertinent to the present discussion. Zimmerman states that "Although present in all communities of the succession in the tall grass prairie, the dickcissel reaches its highest densities in intermediate seral stages. Since its optimum habitat has therefore a spotty geographic distribution and undergoes relatively rapid change from year to year, the species must be opportunistic in its relationship to the environment. Territorial males exhibit 'Ortstreue', but can modify this behaviour as the habitat changes since they depend on the structure of the vegetation as the proximate factor involved in habitat selection. Furthermore, since the height and density of the vegetation also appear to be the ultimate factors affecting reproductive success, the problem of choosing the optimum habitat is less complex. The density-dependent effect



Figure 1. Approximate location (solid dots) of Dickcissel records in Alberta, Saskatchewan, and Manitoba. The solid line delimits the northern boundary of the Forest and Grassland region; the dashed line delimits the northernmost extension of the Grasslands.

Table 1. Saskatchewan records of the Dickcissel

Date	Number	Locality	Observer(s)
1923, June 20	1 male specimen	Old Wives Lake*	H. McCrae (F. W. Lahrman, <i>pers. corres.</i> , 1970)
1923, June 20	3 pairs seen	Old Wives Lake*	H. McCrae (F. W. Lahrman, <i>pers. corres.</i> , 1970)
1933, July 4	Nest and eggs collected	Regina	F. Bradshaw (1934)
1933, July	3 pairs breeding	Regina	F. Bradshaw (F. W. Lahrman, <i>pers. corres.</i> , 1970)
1933, August 1	1 "fledgling" collected	Regina	F. G. Bard (F. W. Lahrman, <i>pers. corres.</i> , 1970)
1933, August	1 seen	Gainsborough	J. T. S. Reynolds (F. W. Lahrman, <i>pers. corres.</i> , 1970)
1933, August	1 seen and heard	Old Wives Lake*	H. McCrae (F. W. Lahrman, <i>pers. corres.</i> , 1970)
1934, June 14	1 pair seen	Regina	H. Boyd and J. H. Taylor (Belcher, 1961)
1934, July 4	1 breeding male collected	Nokomis	F. G. Bard (F. W. Lahrman, <i>pers. corres.</i> , 1970)
1934, July 4	2 pairs seen	Nokomis	F. G. Bard (F. W. Lahrman, <i>pers. corres.</i> , 1970)
1934, July	"seen"	Imperial	F. G. Bard (F. W. Lahrman, <i>pers. corres.</i> , 1970)
1934, July	"seen"	Kedleston	F. G. Bard (F. W. Lahrman, <i>pers. corres.</i> , 1970)
1934, July 11	1 male collected	Regina	F. G. Bard (F. W. Lahrman, <i>pers. corres.</i> , 1970)
1934, July 11	"at least 12 pairs seen in trees of the Regina Golf Course"	Regina	F. G. Bard (F. W. Lahrman, <i>pers. corres.</i> , 1970)
1939, June	2 seen	Regina	F. Mowat (Belcher, 1961)
1940, June 16 to July 2	1 seen	Eastend	L. B. Potter (1943)
1940, September 1	1 seen	Eastend	L. B. Potter (F. W. Lahrman, <i>pers. corres.</i> , 1970)
1942, September 4	1 seen	Melville	L. T. McKim (Houston, 1949)
1953, summer	1 nest located	Swift Current	A. Ward (1953)
1962, September 4	Flock of 15 to 20 individuals seen	Condie	
1964, June 13	1 seen	Oxbow	D. Gilroy (1962) K. Paton (1964)

* Lake Johnstone at the time of McCrae's observations.

Date	Number	Locality	Observer (s)
1940, June 24	1 "singing" male	ALBERTA Walsh	E. T. Jones (R. Lister, <i>pers. corre.</i> , 1970)
1897, June 14 "about 1907"	1 specimen	MANITOBA Portage la Prairie Oak Lake Whitewater Lake	G. E. Atkinson (Criddle, 1921)
1921, June 21	"observed the species"		H. M. Laing (Taverner, 1927)
	1 male specimen		P. A. Taverner (W. E. Godfrey, <i>pers. corre.</i> , 1970)
1921, June 24	2 adult males seen	Melita	N. Criddle and P. N. Vroom (Criddle, 1921)
1921, June 29	"quite a colony"	Whitewater Lake	Hoyes Lloyd and P. A. Taverner (Taverner, 1927)
1921, June 30	1 male specimen	Whitewater Lake	P. A. Taverner (W. E. Godfrey, <i>pers. corre.</i> , 1970)
1921, June 30	1 female specimen	Boissevain	P. A. Taverner (W. E. Godfrey, <i>pers. corre.</i> , 1970)
1921, June 30	1 male specimen	Boissevain	P. A. Taverner (W. E. Godfrey, <i>pers. corre.</i> , 1970)

of territoriality in this species insures the use of the most suitable habitat, forcing additional males into less acceptable vegetation or to seek out other areas by 'distant flight' behaviour. This latter response enables the species to discover areas that are becoming more suitable through succession. Since females are not territorial and establish polygynous pair bonds with males, they are allowed free choice to utilize the best habitat for nesting wherever it might be."

It is thus necessary to examine successional changes in the grassland in order to understand fully the population fluctuations and invasions shown by Dickcissels. In seeking an explanation for the invasions into the Regina area in 1933 and 1934, Belcher (1961: 65) stated that "The drought of the early 1930's apparently played a role in the northward extension of the Dickcissel." She referred to Taber's study (1947) in Wisconsin which also showed that during the drought of the early 1930's strong northern Dickcissel colonies were established in counties where they were not present before or after these years. Emlen and Wiens (1965) felt that it was possible that the 1964 Dickcissel invasion in Wisconsin was triggered, at least in part, by the extremely dry climatic conditions in Illinois and Wisconsin during the spring months. These authors (*op. cit.*:55), thought that "If dryness does play a role in Dickcissel range fluctuations, however, its effects must be quite variable, for Dickcissels remained scarce in the southern part of the state during the dry years in the early 1950's, and were common in 1940 and 1950, both fairly wet years." I examined rainfall records for the Regina area for the years in which Dickcissels were observed in southern Saskatchewan but failed to detect a correlation of the kind that might have been expected. I conclude, therefore, that it is the successional stage of the grass in the central portions of the species' range that, as Zimmerman pointed out, provide the proximate factor involved in habitat selection.

Acknowledgments

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BROWN-HEADED COWBIRD PARASITIZES BALTIMORE ORIOLE

by **Robert W. Nero**, 546 Coventry Road, Winnipeg

According to Herbert Friedmann, who has recently published a comprehensive summary of records of parasitism in cowbirds, there are only 13 known cases of parasitism of the Baltimore Oriole; in his words, this species is "parasitized very infrequently" (Host relations of the parasitic cowbirds. U.S. Natl. Mus. Bull. 233:132-133). The present observation is apparently the first case for Manitoba, as well as my second record for this species (*Passenger Pigeon*, 11:132, 1949).

Several orioles were kept coming to a feeder in our yard in May, 1970, attracted by almost daily provision of sections of fresh oranges. Late in the month a pair began building a nest on to a small portion of woven nest material where orioles had started to build in the previous year. The nest

which they completed was 11 feet above the ground and fastened to the ends of branches in an aspen poplar. It was of typical shape and was constructed almost entirely of the usual silvery-gray, fine, natural plant fibres.

Sometime in June it became apparent that the nest had been deserted. When examined on July 4, two entire Brown-headed Cowbird eggs comprised the sole contents. Neither egg showed signs of development. Evidently, the nest had been parasitized prior to egg-laying by the oriole, and possibly this was the cause of nest desertion. Although cowbirds were seen on many days in our yard, none had been seen near the nest. Orioles had been seen at or near the nest site for much of the observation period and were still in the neighborhood in July.

BROWN-HEADED COWBIRD PARASITISM ON SPOTTED SANDPIPER AND WILSON'S PHALAROPE

by David R. M. Hatch, Oak Lake, Manitoba

The Brown-headed Cowbird (*Molothrus ater*) is notorious for its habit of laying eggs in other birds' nests. Normally the eggs are laid in nests of small passerine birds, Yellow Warblers and Clay-colored Sparrows particularly being the unfortunate hosts in Manitoba. In recent years, however, cowbirds have been found to be parasitizing nests of species which they normally never parasitize. On June 15, 1965, Martin McNicholl found a cowbird egg in the nest of a Mourning Dove in Brookside Cemetery, Winnipeg, Manitoba (McNicholl, 1968). On June 15, 1967, one-half mile east of the town of Oak Lake, Manitoba, I located a nest of a Common Crow and this nest contained one cowbird egg (Hatch, 1967). On June 19, 1968, the nest of a Slate-colored Junco was found with an old Barn Swallow nest under the eave of the museum building at Wasagaming, Riding Mountain National Park (Hatch, 1968). The nest contained only one young—a Brown-headed Cowbird—which was being faithfully fed by a pair of juncos. This nestling was successfully fledged. Three nests actively being used by Barn Swallows on this same building were also examined June 19, 1968, and two were found to contain cowbird eggs.

This past summer I was surprised to discover a cowbird egg in the nest of two additional species. These were a Wilson's Phalarope (*Steganopus tricolor*) and a Spotted Sandpiper (*Actitis macularis*). The young of both these species are precocial and as such they leave the nest the day they are hatched. Consequently, even if the cowbird egg did hatch in either species' nest, the young would surely perish as it would be left alone in the nest and die of starvation or exposure. Both species must be considered "accidental hosts" and in all probability the cowbird "dumped" her egg because she could

not locate the nest of a suitable host species.

The Wilson's Phalarope nest was located at Watchorn Bay on Lake Manitoba approximately 10 miles west of the village of Moosehorn, Manitoba. It was a depression in damp, alkaline ground 32 yards from the edge of the water. It was lined with fine sedges of the same *Carex* sp. that surrounded the nest and which were six inches high at the time of my visit, June 15, 1970. The nest contained the normal clutch of four phalarope eggs all pointed with the small end at the centre of the nest, plus the cowbird egg. The cowbird egg was in the nest but rested on the outside edge of these four eggs. Unfortunately I was unable to return to the Moosehorn area again within the next couple of weeks, so I was unable to determine what happened to the cowbird egg or the nest.

As a point of interest, one wonders what attracted the cowbird into this particular locale in its attempt to find the nest of a host species. The nest was at least 200 yards from the nearest trees or shrubs. Cowbirds do lay eggs in Red-winged Blackbird nests which are built in trees, shrubs, cattail or bulrush, but in this case even the nearest cattail and bulrush were 150 yards distant.

The Spotted Sandpiper nest was located on an island in Lake Manitoba. The nest was found on June 26, 1970, and observed by Gene Collins, Brian Gillespie and me. The nest was a depression lined with fine grasses located in sparse vegetation, consisting of 10-inch high sedges and 18-inch high goldenrod. Willow, Manitoba maple and elm were all within 40 yards of the nest. The nest possessed the usual four sandpiper eggs, plus the cowbird egg. In this case the arrangement was entirely different from the phalarope nest. Here the cowbird egg was in the centre of the nest and the other four

eggs evenly spaced around it and all pointing inward, suggesting that the egg had been accepted by its host. The three of us visited the nest site on July 8, 1970, and found that the nest had been destroyed. Lake Manitoba was so high in May and June, 1970, that hundreds of nests were washed away whenever strong winds occurred, as these produced wind-tides which inundated all low land both on the islands and the mainland.

Bent (1965) reports that Friedmann (1929, 1934, 1938, 1943, 1949) listed 149 species and subspecies victimized by the eastern cowbird. Neither in the earlier papers nor in Friedman's recent survey (1963) was the Spotted Sandpiper included. However, Friedmann does give the following account for the Wilson's Phalarope:

"At Bear River Refuge, Utah, on June 3, 1938, Williams and Trowbridge (1939, p. 77) found two nests of this bird parasitized by the northwestern race of the Brown-headed Cowbird. The nests were about 25 yards apart and were fairly well concealed in damp salt-grass on a small artificial island in the lower marshes. Each contained four phalarope and two cowbird eggs. Since these instances seemed from available information to constitute a new host record, subsequent visits to the nests were made to learn the ultimate fate of the eggs. On June 21, it was found all the phalarope's eggs in one nest had hatched and two cowbird's

eggs were left. These were later flooded. In the second nest, on June 28, three phalarope eggs were found hatched. The remaining phalarope's eggs were pipped but had been destroyed by flooding along with the cowbird's eggs. One of the cowbird's eggs in the first nest was evidently infertile, but the other was advanced in development."

Friedmann (1963) gives one record for the Upland Plover and includes the Killdeer with considerable doubt. Mr. Harold Mossop in "Chickadee Notes" however, states "We once found a cowbird egg resting snugly with the usual foursome of Killdeer's very much larger eggs." These are the only two other species found in Manitoba, which have precocial young for which there are records known to me of cowbird parasitism other than the two I found this year.

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Spruce Grouse

Photo by R. A. Mitchell, The Pas, Manitoba

BREEDING DISTRIBUTION OF FORSTER'S TERN IN THE PRAIRIE PROVINCES

by **Jonathon M. Gerrard**, 809 Colony St., and **Douglas W. A. Whitfield**,
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On July 17, 1968, during a survey of Bald Eagles in north-central Saskatchewan we noticed several Forster's Terns (*Sterna forsteri*) on territory at Otapanask Bay at the north end of Sled Lake. On July 10 we returned to the site to verify the observation. Sled Lake is a large, shallow lake with a high duck population, located seven miles south of Dore Lake. Otapanask Bay is one of several large, marshy bays containing abundant stands of giant reed grass (*Phragmites*) and bulrush (*Scirpus*). At least eight adults were present in the colony. Three nests, which were platforms of matted reeds 12 to 18 inches in diameter, built up a few inches above the water level, were found in stands of bulrushes. Although the nests were empty, three flightless young were found swimming nearby. One adult specimen was collected to confirm the identification, and is deposited in the museum of the Department of Biology, University of Saskatchewan, Saskatoon.

The following summer, on June 8, 1969, Murray Kyle of Prince Albert showed us a colony of Forster's Terns at Pelican Lake two miles east of Dore, Saskatchewan. About 80 adults were present and nearly half of them appeared to be sitting on nests. It wasn't possible at the time to approach closely, because of the deep water between the shore and the apparently shallower, reedy area where the birds were sitting. A smaller group of about a dozen birds was found approximately 400 yards from the main colony. Both groups reacted to our presence in a way which suggested defence of breeding areas.

Inasmuch as the Sled Lake colony lies north of the breeding range as shown by Godfrey (1966:189), we

decided to review records of this species, which nests in Canada only in the Prairie Provinces, to see what additional information regarding their breeding status might be available. A list of localities of known or suspected breeding is given and these localities are plotted on the map (Figure 1). Information was obtained from the literature, through personal communication with other observers, and from the Prairie Nest Records Scheme (PNRS). So far as we can determine, only our Sled Lake record (1) and Fawcett Lake in Alberta (19) are outside of the known range. These localities represent range extensions of 50 and 90 miles respectively.

From these records we see that Forster's Tern breeds most commonly in Manitoba and less frequently in Saskatchewan and Alberta, and that it finds suitable habitat for nesting in the grasslands, aspen parkland, and boreal forest regions. Their observed breeding range appears to lie well to the south of the Precambrian Shield and is perhaps related to the availability of marsh habitat. In any case, knowledge of the ecological factor or factors which delimit the range awaits further investigation.

Acknowledgements

Many valuable suggestions, particularly regarding Manitoba records, were made by Martin McNicholl and Robert W. Nero. W. Ray Salt pointed out some additional records for Alberta, and W. Earl Godfrey provided information from records of the National Museum of Canada. James A. Slimmon and Greg O. Michalenko accompanied us on the trip to Sled Lake on July 27, 1968. All of the above persons, and C. Stuart Houston, made suggestions for improvement in the manuscript.

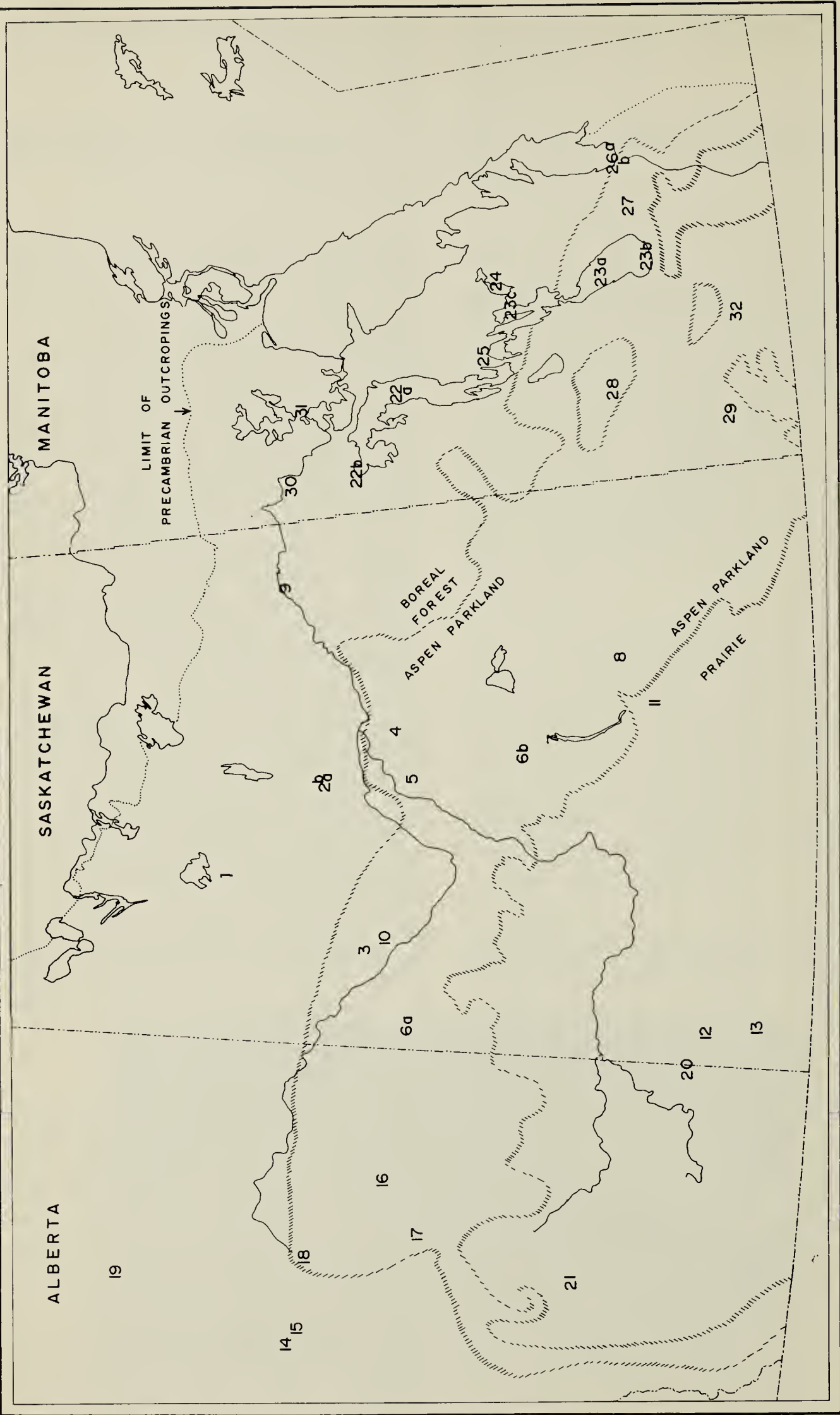


Figure 1. Breeding localities of Forster's Tern in the Prairie Provinces. Numbers refer to records in list of breeding localities. Boundaries of vegetation zones were taken from Bird (1961).

List of Breeding Localities of Forster's Tern in the Prairie Provinces

SASKATCHEWAN

1. Sled Lake in 1968. Refer to the above text. [Definite]

2a. Christopher Lake in 1958. (pers. comm. D. Karasiuk, 1968) [Definite]

2b. Emma Lake, "Two or three individuals occasionally observed . . . On July 3 and 7, 1939 . . . over a marsh at Josie Lake." (Mowat, 1947) [Possible]

3. A marsh 10 miles N. of Meota. Three nests on July 3, 1959. (Spencer Sealy, P.N.R.S.) [Definite]

4. Waterhen Marsh. "very abundant, especially in the neighbourhood of the larger lakes of the region . . . two separate colonies were observed." (Congdon, 1903); "One seen June 14, 1955 and seven on June 15." Houston and Street, 1959) [Definite]

5. Pelican Lake, in 1969. Refer to the above text. [Definite]

Manito Lake, in 1906. "I authenticated its presence by collecting . . . at Manito Lake, Sask. (Geo. Atkinson)." (Macoun, 1909). This probably refers to the lake near the Alberta border (6a), but Little Manitou Lake (6b) might have been intended. [Possible]

7. Last Mountain Lake. Single specimens were taken at Imperial Beach on May 25 and July 26, 1924. (Mitchell, 1925). Breeding confirmed at the north end of the lake in 1969. (Anweiler, 1970). [Definite]

8. West end of Pasqua Lake. "on June 19, 1966 a nest with three eggs." (E. M. Callin in the MS of the forthcoming publication on the birds of the Qu'Appelle Valley) [Definite]

9. Saskatchewan River "some 10 to 50 miles up river (west) from Cumberland House." This record refers to the type specimen of the species, collected by Thomas Drummond on July 18, 1827. (Houston and Street, 1959.) In view of the Sled Lake observations, this could have been during the breeding period, although it would be very late further south. [Possible]

10. A marsh south of Murray Lake, in 1935. (Dunk, 1936) [Definite]

11. Regina, Wascana Marsh, in 1960. (Fox, 1960) [Definite]

12. Maple Creek dam, in 1948. "Two were identified on June 24." (Godfrey, 1950) [Possible]

13. Cypress Lake. "Five seen . . . on June 25, 1933." (Potter, 1943) [Possible]

In addition to the above, there is a record for Rush Lake. "We waded out to the first island . . . there on the ground were scores of nests of Avocets, Forster's Terns, as well as a few of the Bonaparte's Gull" (Raine, 1892). Judging by the nest locations, and the absence of any reference to Common Terns, this might be a misidentification.

ALBERTA

14. West end of Lake Isle. "Dr. E. W. Rowan mentions . . . seeing a pair of Forster's Terns 'with a partially built nest', on May 22, 1951." (pers. comm. W. R. Salt, 1970) [Definite]

15, 16, 17. Lake Wabamun, Dried Meat Lake and Buffalo Lake are listed as breeding localities by Salt and Wilk (1966). [Definite]

18, 19. Lac la Nonne and Fawcett Lake. Sight records. (Salt and Wilk, 1966) [Possible]

20. Many Island Lake. "A few birds were seen . . . on June 18, 1906 and on July 9 two specimens were taken." (Bent, 1907). [Possible]

Stobart Lake, in 1964. (Jack Shier, PNRs) [Definite]

MANITOBA

In the following John Macoun's records are from a trip he made in 1881 from the south end of Lake Manitoba to Swan Lake House.

22a. Lake Winnipegosis. "Breeding abundantly . . . (Macoun)." (Thompson, 1891) [Definite]

22b. Mouth of the overflowing river on Lake Winnipegosis, where birds were seen July 21, 24 and August 3 in 1951. (Godfrey, 1953). [Definite]

23a. Lake Manitoba. "Breeding abundantly . . . (Macoun)." (Thompson, 1891); eggs in the National Museum of Canada, collected June 22, 1893. (Taverner, 1919) [Definite]

23b. Delta on Lake Manitoba. (Hochbaum, 1944); M. McNicholl (pers. comm. 1970) "found several colonies of this species at Delta in 1968 and 1969." The record from Thompson's paper (1891), "Portage la Prairie . . . probably breeds . . . (Nash)", likely refers to Delta. [Definite]

23c. Mouth of the Fairford River on Lake Manitoba. "It was found to be common . . . four specimens were taken . . . on June 18 and 19, 1921." (Shortt and Waller, 1937) [Probable]

24. Lake St. Martin. "Quite plentiful and apparently breeds in the marshes". (Shortt and Waller, 1937) [Probable]

25. Waterhen River. "Breeding abundantly . . . (Macoun)." (Thompson, 1891) [Definite]

26a. Lake Winnipeg. "Breeding on the borders of Lake Winnipeg in the latter part of May . . . (Dr. Gunn)." (Thompson, 1891). This probably refers only to the southern end of Lake Winnipeg, as Gunn did not travel very far north. [Definite]

26b. Selkirk Settlement. (Thompson, 1891). This is also credited to Donald Gunn, and probably refers to the Netley Marshes. [Possible]

27. Shoal Lake. (Thompson, 1891); eggs in the National Museum of Canada; "In 1917 we found Forster's Tern in company with the Common Tern, but generally scarce." (Taverner, 1919); F. Dippie's record, quoted by Macoun (1909), of "an immense colony . . . breeding on an island" is questionable. [Definite]

28. South Lake, Riding Mountain National Park. "found in 1968 by David Hatch . . . definite breeding colony . . ." (pers. comm. M. K. McNicholl). [Definite]

29. Oak Lake Marshes, "every year". (D. R. M. Hatch, pers. comm. to M. K. McNicholl, 1969) [Definite]

30. Halcrow Lake, near The Pas in

1951. "Three June 15 and 16 . . ." (Godfrey, 1953) [Possible]

31. Moose and Cedar Lakes area. "locally common". (Clarke in MS report covering his observations in the summer of 1929.) [Probable]

32. Glenboro Marshes. Breeding suggested by behaviour of adults. (pers. comm. D. R. M. Hatch to M. K. McNicholl, 1969.) [Probable]

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ENEMIES AND OTHER PERILS OF THE MOUNTAIN BLUEBIRD IN SOUTHWESTERN MANITOBA

by **John Lane**, 1701 Lorne Avenue, Brandon, Manitoba

The Mountain Bluebird (*Sialia currucoides*) usually makes its appearance in southwestern Manitoba in late March and remains until late October. During this interval many perils beset the bird and mortality is high; this is reflected in the numbers of "built-over" nests found each summer in nestboxes. When one of a breeding pair of bluebirds disappears from any cause, the eggs are abandoned, and another pair of hole-nesters will take over the nestbox and build their nest on top of the original. Only if the bluebird nest contains young will a bereaved parent continue the nest cycle, and then it is customary to find either a female or male parent trying to feed its hungry offspring singlehandedly.

Surprisingly, the early returning Mountain Bluebirds are able to withstand the final blasts of dying winter, including sub-zero temperatures and driving snowstorms, but six weeks later, with the first brood clutches laid, a late May snowstorm can create havoc. Many incubating females appear to panic and abandon their eggs; in some cases they disappear permanently, and it is then common to see only the male at the nest site, vainly guarding the nest and eggs.

One main reason for "built-over" nests is the mortality suffered by Mountain Bluebirds from traffic mishaps. Where a nestline is located along a railroad or by a busy paved highway, many bluebirds pay with their lives for their single-minded pursuit of flying insects. When thus occupied, they pay not the slightest heed to speeding trains or traffic on the highway. In 1970, for example, we listed two deaths by trains and eight by traffic collisions. Without doubt many other unrecorded fatalities occur.

Among the raptors, Cooper's Hawk appears the main threat, when nestlines are close to cover; in more open areas the Pigeon Hawk is the chief

culprit. Bent (1949) lists the Sharpshinned Hawk, along with Cooper's Hawk, as preying on Mountain Bluebirds. In Montana, Power (1966) also includes the Pigeon Hawk, together with the Marsh Hawk and the Common Crow, in his list of enemies of the species. He also thought the Sparrow Hawk was suspect. Without doubt, all the above can be considered occasional enemies.

Several smaller species of birds are also important factors in the life of the Mountain Bluebird. Power (1966) describes in detail encounters between Mountain Bluebirds and Tree Swallows and his findings closely parallel our data in southwestern Manitoba. There appears to be a marked variation in the degree of pugnacity shown by the individual Mountain Bluebird when it comes to fighting for a nest site. Even when the contest is simply bluebird versus swallow, there is no sure victory for the bluebird, and when the Tree Swallows attack in force, as they often do, the outcome is usually a victory for them. Nevertheless, neither species appears to have full possession until the nest is built and a clutch started, after which serious tilting for that nestbox appears to end.

Bent (1949) quotes a contributor as giving the "Flicker" as an enemy of the Mountain Bluebird in Manitoba, and the same contributor states that the House Sparrow is "no match" for the bluebirds. Locally, the Yellow-shafted Flicker is not considered an enemy of the Bluebird, but we now have strong evidence that cock House Sparrows are quite capable of cornering and killing adult bluebirds. One of our nestlines, 100 nestboxes in extent, had to be abandoned in 1970 (Lane and Bauman, 1970) because of a general takeover by House Sparrows. When cleaning out some of these boxes we found three that had the remains of adult Mountain Bluebirds buried

under the mass of a sparrow nest.

Also, during the summer of 1970, D. Randall and I cleaned a nest of House Sparrows from a box on another nest-line, and a pair of Mountain Bluebirds immediately started to move in. The pair of dispossessed House Sparrows soon returned and the bluebirds at once retired to a respectful distance. Randall then shot the cock sparrow and the bluebirds quickly flew back to the nestbox, completely ignoring the female sparrow when she returned later.

The Starling is another formidable competitor for nestboxes, but can be excluded by limiting the diameter of the nesthole to one and two-fifths inches. That tiny demon, the House Wren, will often drive out a pair of bluebirds by slipping into the nest and puncturing the eggs, but it can be controlled by keeping the nestboxes well clear of cover. We might mention here that during the past nine years we have checked well over 2000 active nests of Mountain Bluebirds with not a single instance of molestation by the Brown-headed Cowbird.

Power (1966) mentions only one example of nest invasion by Deer Mice but Swenson (1968) reports several cases of almost certain depredation of active bluebird and Tree Swallow nests by this species. Our notes in Manitoba show that for some years invasion of our nestboxes by Deer Mice had been an event of the autumn season. In June, 1969, however, an active nest of the Eastern Bluebird was molested by this rodent (Randall and Lane, 1969). In June, 1970, we checked a Mountain Bluebird nest the day the first egg was laid. Eight days later we found this box filled by a mouse nest interspersed with bluebird feathers. A plump mother Deer Mouse with three babies was in possession, and a search revealed two bluebird eggs in the bottom of the nest, together with the outer wing feathers and the tarsi and feet of an adult bluebird. Since the female bluebird had laid a second egg the day after our first visit, this left but seven days for the bluebird to be killed in some manner, then apparently eaten

by the mother mouse, a mouse nest assembled and three babies born. There is no way of knowing what killed the mother bluebird, but the Deer Mice are at least suspect.

In 1968 members of our Junior Birders Club found an instance of predation of an Eastern Bluebird's nest by Eastern Chipmunks (Miller, 1968), and in 1970 we noted further molestations of nestboxes by this species. In the C.P.R. siding at Melbourne, Manitoba, an active nest of Mountain Bluebirds was invaded by chipmunks and two of the young killed by the time we arrived. We faced the nestbox in a new direction and took other steps to keep the vandals out. Near Clariere, Manitoba, a nest of Tree Swallows was also attacked by chipmunks and the naked babies killed. All but three had been removed from the nestbox, to which we were attracted by the appearance of the male Tree Swallow, since his wing feathers were in shreds—mute testimony to his efforts to drive off the invaders.

For the second consecutive year we found that Red Squirrels had moved into one of our nestboxes (Randall and Lane, 1969). Again it was a pair of Mountain Bluebirds that was driven out by the squirrels, and just as in 1969 the mere taking of a few photos was sufficient to prompt the mother squirrel to move her family.

Apparently all species of birds are afflicted with fleas and lice of some kind, but probably these could be considered more of an annoyance than an enemy to their hosts. However, in southwestern Manitoba two other arthropods have, on rare occasions, proven to be real perils to the young of both bluebirds and swallows. These are the Red Pharaoh Ant (*Monomorium pharaonis*, (Lin.)) and the much larger Black Carpenter Ant (*Camponotus herculeanus*, (de Geer)) [identifications by Reginald E. Forbes, Agricultural Extension Department, Brandon]. We can be thankful that invasions of nestboxes by these creatures are not numerous, for they must inflict a particularly painful death on the baby birds. In 1970 we found one instance

of Red Pharaohs ascending to a nest of Mountain Bluebirds on the Griswold-Souris nestline, killing all the young, and a case of Tree Swallows meeting the same fate. In the Camp Hughes area, a small swarm of the Black Carpenters overwhelmed a nestful of half-fledged Mountain Bluebirds, and at this nest we noted the parent birds perched on a high wire, the picture of silent dejection. Clearly they had not been able to cope with the invaders.

From the smallest enemies of the Mountain Bluebird, we now turn to Man who must rate as the greatest peril of all. To point up this statement, our nestlines have suffered over 250 cases of vandalism during the past 12 years of operation; nestboxes have been destroyed by shooting, or have been knocked down, smashed, or simply stolen. In addition, many more have been robbed—in one instance 10 consecutive nests had all the eggs taken on the same day. The parent birds are often shot, or one of a breeding pair is shot, resulting in the abandonment of the nest (see above). Some years ago our junior birders set out eight nestboxes on a fence enclosing a horse run. The first year of operation found no less than seven pairs of bluebirds using the nests, so the lads named this spot "Bluebird Square." All went well with this nestline till the early summer of 1970, when we found "Bluebird Square" completely shattered, with every nestbox smashed or robbed, and the corpses of two Mountain and one Eastern Bluebirds strewn about.

Not a single successful bluebird nesting was recorded for this spot in 1970, so completely had the birds been driven out.

Some form of man-caused pollution appears to have reached our breeding populations of Mountain Bluebirds by mid-June, 1970 (Lane and Bauman, 1970), and, in the absence of any certain proof, we can only suspect that the deaths of between 200 and 350 young bluebirds were caused by some type of food poisoning, probably of insecticide origin.

Despite all the foregoing, it is a matter for great rejoicing that the exquisite Mountain Bluebird continues to multiply on the Canadian prairies, as does his lovely cousin, the Eastern Bluebird. Both species have shown that, given the necessary nestholes and as much protection as possible, they can and will thrive in our midst, imparting joy and beauty to the eye and ear of the beholder.

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OBSERVATIONS OF TURKEYS IN BRITISH COLUMBIA

by **William J. Merilees**, Selkirk College, Castlegar, B.C.

The Turkey, *Meleagris gallopavo*, was once a native resident species in eastern Canada, but no longer occurs there except where recently introduced (Godfrey, 1966).

In recent years Turkeys have been introduced in the states of Washington and Montana, some of these releases

being close to British Columbia. Since then some of these birds have crossed the International Boundary into southern British Columbia (see map). Turkeys have been reported from two locations: the Pend Oreille Valley south-east of Trail in the West Kootenay, and near Newgate, south of Elko in

the East Kootenay. Both these areas are within 50 miles of the release areas 10 miles south of Kettle Falls, Washington (S. Guenther, pers. comm., September 22, 1969) and near Eureka, Montana (R. J. Greene, pers. comm., May 7, 1970).

In Washington, Turkeys have moved up to 50 miles in four years. From the original release south of Kettle Falls, the birds have spread northeast; now there is a good population near Marcus, 25 miles from the Canadian Border, and broods were known to have been raised near Northport, six miles from the Border. In 1967 several reports were received of sightings in B.C.: two from Trail, one from Nelson, and several from the Pend Oreille Valley (S. Guenther, pers. comm.). In Montana, released birds spread 20 to 30 miles from the release site, some even being found up to 5000' elevation. Sightings were also reported from B.C. (L. Netzloff, pers. comm., January 28, 1970). From the releases near Eureka, birds could easily have reached B.C. as stringers of yellow pine and river bottom land run into Canada (R. J. Greene, pers. comm.).

I have visited the Pend Oreille Valley on numerous occasions but I have not been able to locate any Turkeys, though I have found their droppings. In my enquiries I have located many people who have seen Turkeys in southern B.C. and from these people the following notes have been taken: Karoly Gorog, Secretary - Treasurer, Trail Wildlife Association, Trail, B.C. stated (pers. comm., May 7, 1970): "I saw the turkeys in May 1967, 15-16 miles up the road on the Pend Oreille River above the Waneta Bridge. There were four adult full grown birds. I watched them for about 5-6 minutes then they wandered away."; Gordon T. Earl, rancher, Newgate, B.C. stated (pers. comm., December 14, 1969): "It would be two years now since we have seen any on our place. They were very shy, really swift afoot; colouring very similar to the tame, but not as large."; Peter Berukoff, Sr., rancher, Pend Oreille Valley, stated (pers. comm., December 8, 1970): "Between Septem-

ber and November, 1967, I saw flocks of up to 50 birds on a number of occasions between Nine and Twelve Mile Creeks." (Flocks at this time (Jonas, 1966) would be composed of both adult and juvenile birds, indicating breeding had taken place in the previous months.); Russ Fletcher, hunter, Nelson, B.C. (pers. comm., February 18, 1970): "I saw a wild turkey around the middle of November, 1969, in the Salmo Valley near the Black Bluffs." (Nine miles south of Salmo.)

The Fish and Wildlife Branch of the British Columbia Government has made no releases of Turkeys in the Province, and residents living in the Pend Oreille Valley have not raised domestic Turkeys, the valley being used solely as range land for cattle. Turkeys have also been shot in the Pend Oreille Valley on a number of occasions, particularly in the fall of 1967, but owing largely to fear of prosecution under the game laws no proof is available. From this information there is little doubt that a small number of Turkeys have crossed into Canada. Some appear to be resident and in 1967 at least have been thought to breed.

The question of whether the Turkey can withstand severe winters would appear to be an important factor in maintaining a small population in British Columbia. In Montana they have withstood temperatures of 53 degrees below zero (Fahrenheit) and two to three week periods of sub-zero weather with four feet of snow (L. Netzloff, pers. comm.). The subspecies of Turkey involved in these introductions, *Meleagris gallopavo merriami*, has had particular success in ponderosa pine forests, pine seeds being their preferred item of diet (Jonas, 1966). S. Guenther (pers. comm.) considers the area around Trail, B.C., including the Pend Oreille Valley, fairly good turkey habitat which, though it would not support a large population, would always support a few birds.

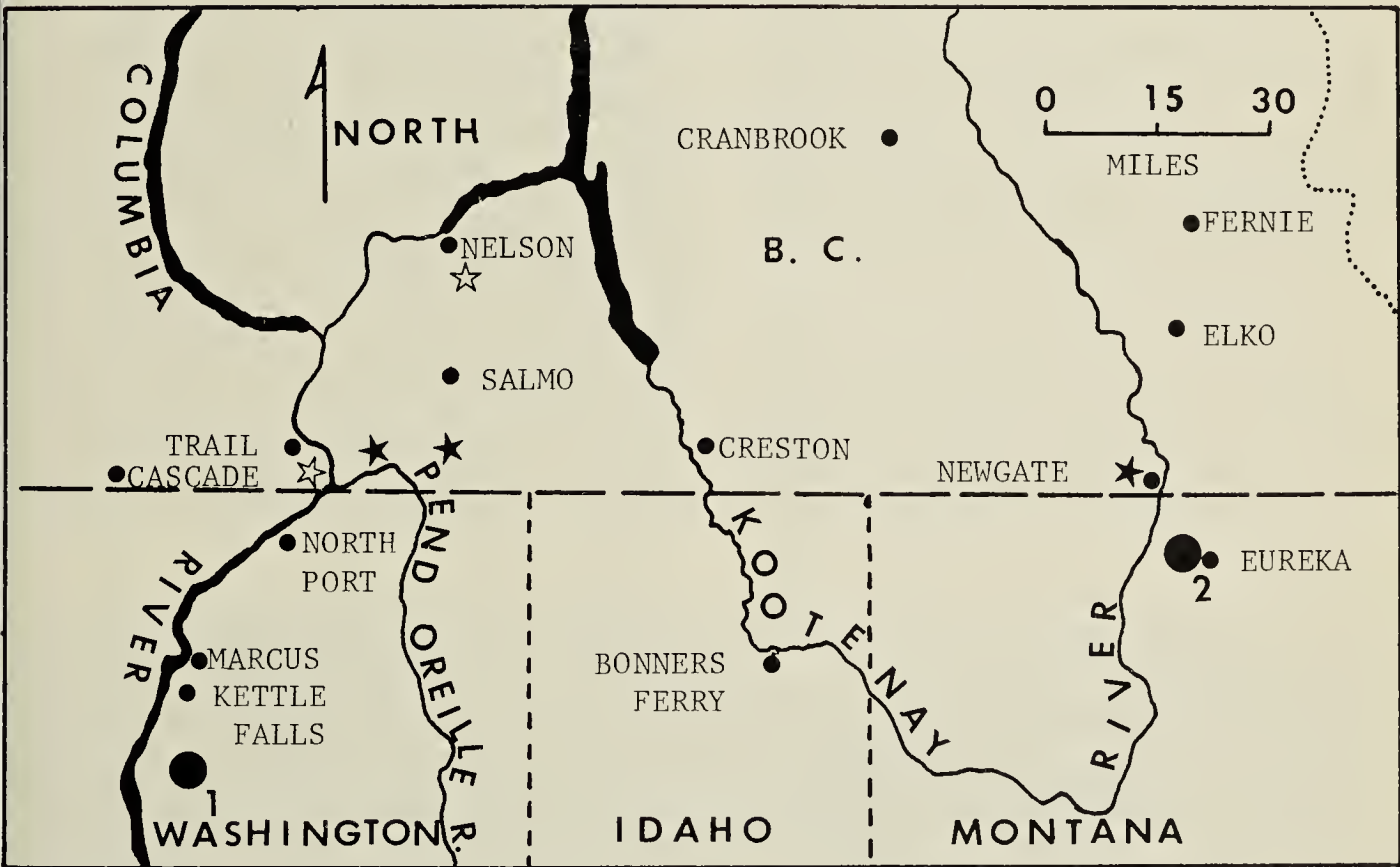
In British Columbia, ponderosa pine forests cover a considerable portion of the southern interior (Brayshaw,

1970). Some of this area might be well suited to supporting a Turkey population. Introduction of this species has been made in Alberta (Salt and Wilk, 1966) and perhaps should be considered for British Columbia. In Montana, Idaho and Washington, hunting seasons are now permitted with small numbers of Turkeys being taken each year. For the present, the status of the Turkey in B.C. is precarious. Though a small number of birds appear to be resident in the Pend Oreille Valley, they have evidently disappeared from the Newgate area. In the Pend

Oreille Valley, indiscriminate hunting by local residents may pose the greatest threat to their continued existence in as much as present legislation does not protect this species.

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● RELEASE SITES

★ RECENT SIGHTINGS

☆ SIGHTINGS REPORTED TO STATE GAME DEPARTMENTS

● 1 - 10 MILES SOUTH OF KETTLE FALLS - 1962

● 2 - 1 1/2 MILES NORTH WEST OF EUREKA - 1964

TURKEY RELEASES AND OBSERVATIONS

HYBRID CINNAMON TEAL X BLUE-WINGED TEAL AT REGINA

by **Fred W. Lahrman**, Saskatchewan Museum of Natural History, Regina

On April 25, 1970, while I was photographing ducks from a blind at the edge of a slough approximately 12 miles northwest of Regina, a bird appeared that I took to be a male hybrid teal. When first seen, it was with a male Blue-winged Teal, but thereafter it was always alone when I observed it. I saw it a second time several days later, but not again until June 6 when I was once more able to photograph it.

The hybrid duck was about the same size as a Blue-winged Teal, but more robust in appearance. It had the blue patch on the wing, which appeared to be almost identical to that of the Blue-winged Teal, the legs were of a similar colour to those of the male Blue-wing, and part of the white crescent showed on the head. On the other hand, the general reddish colour of the bird suggested the Cinnamon Teal. The colour pattern of the head did not really fit either species.

I described the bird later in a letter to W. Earl Godfrey, Head of the Vertebrate Zoology Section of the National Museum of Natural Sciences and sent him kodachrome transparencies which I had taken of it. Mr. Godfrey (pers.

comm., December 2, 1970), after examining the photographs, expressed his opinion that the bird was a cross between a Blue-winged Teal and a Cinnamon Teal.

Because of the dates of my observations of the hybrid teal, it was of real interest to me to learn that Dr. George Ledingham had seen a duck that he thought might be a Cinnamon X Blue-wing hybrid on May 30, 1970, at a slough several miles south of the city of Regina. Again, the general colour of the bird was reddish, but Dr. Ledingham described its head as showing faintly the crescent of a Blue-wing. The more subdued greyish colour of the Blue-wing's head and neck seemed to be combined with the cinnamon colouring. When Dr. Ledingham examined my colour transparency, he felt that this was the bird that he had seen. At the time that Dr. Ledingham observed the hybrid bird, 10 or so drakes were pursuing a single female Blue-wing, and the reddish-coloured one was certainly the dominant male. An early record of a case of hybridism in the wild in these two species is listed by Cockrum (*Wilson Bulletin*, 64:142, 1952.)



Male hybrid Cinnamon X Blue-winged Teal

Photo by F. W. Lahrman

THE MEMORY OF HUMMINGBIRDS

by **Richard S. Miller** and **Richard Elton Miller**, 131 Northford Road,
Banford, Connecticut

Ruby-throated Hummingbirds (*Archilochus colubris*) have been regular summer visitors to a clearing at Lindner Point on Emma Lake since the late 1930's, where they feed on nectar from the flowers of delphinium and clematis that were planted by Ernie Lindner when he first built a cabin on the island in 1935.

Spring migrants of this species arrive in the region of Emma Lake and Prince Albert in late May (Houston and Street, 1959), long before flowers are in bloom. Between their first spring arrival and the time when nectar from flowers is available, we have observed hummingbirds feeding on sap from holes made by Yellow-bellied Sapsuckers (*Sphyrapicus varius*) and on spiders and other small arthropods from the branches and needles of spruce trees. The dependence of hummingbirds on sap from sapsucker holes has long been known (see *Blue Jay*, 23:80-81); R. W. Nero (pers. comm.) has suggested the interesting possibility of a correlation between the northern limit of distribution of the Ruby-throated Hummingbird and the distribution of sapsuckers in western Canada.

In the spring of 1964 artificial feeders were installed by the authors at several locations in the yard at Lindner Point, and these feeders were subsequently used regularly by female Ruby-throated Hummingbirds every summer for the next four years. The feeders consisted of wire loops that supported 18 x 145 mm. lip vials filled with a 50% sugar solution coloured with red vegetable dye (Fig. 1).

A study of the feeding behaviour of Ruby-throated Hummingbirds in the summer of 1968 (Miller and Miller *in press*) was designed to test the relative importance of colour and the position of a food source in the establishment of feeding preference. The results showed that Ruby-throated Hummingbirds do not have a significant prefer-

ence for any one colour when given a choice of different coloured foods of equal quality. The location of a food source is more important than its colour in the quantitative expression of a feeding preference, although any of several colours may act as a discriminator stimulus in the process of locating and identifying a food. An interesting and important question is the length of time that the location of a food source is remembered.

Previous authors (Collias and Collias, 1968) have noted that hummingbirds frequently show "exploratory shifts" to other colours, even when trained to one colour as a food source. This was observed frequently during these experiments. It was also observed that the hummingbirds would often investigate plants that were not yet in flower, in spite of an abundant food supply from the artificial feeders. This activity was usually directed to delphinium and clematis, which are the most important sources of nectar in the yard when they are in bloom. Collias and Collias (1968) suggest that an "exploratory shift" away from a known food source "increases the probability that flowers of a different species will be discovered to be profitable just as soon as they begin to have a good nectar flow." The efficiency of this activity would obviously be greater if hummingbirds remembered the location of plants that were important food sources in previous years. Some observations made during this study suggest such a possibility.

If a feeder is removed from its position, hummingbirds will continue to visit that position, often dipping their bills through the wire loop that previously supported a feeder. This practice was often continued for several weeks, in spite of the fact that the feeder was not replaced and the bird received no reward for its visits. In one case, a single female which was identifiable by some broken feathers

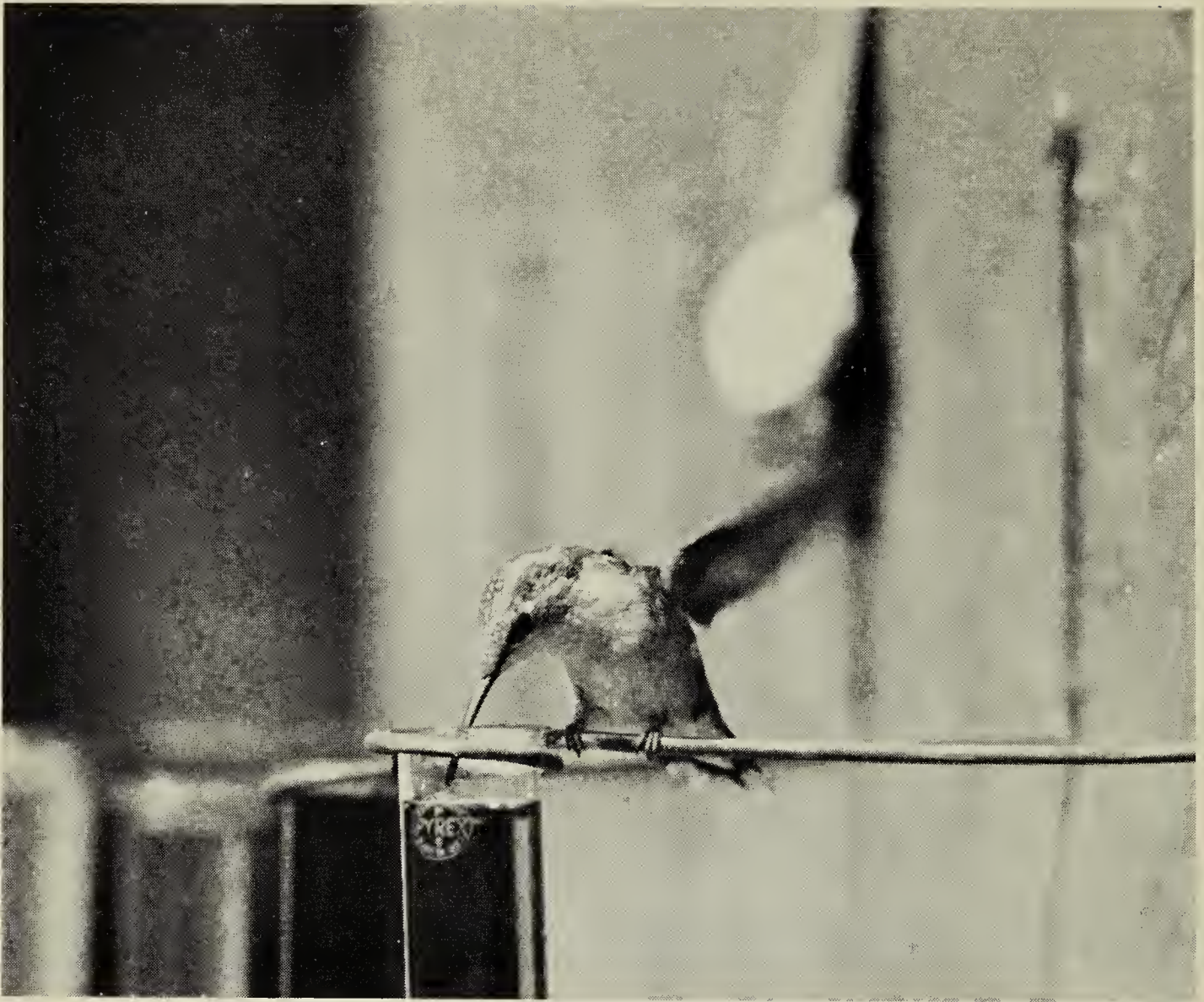


Figure 1. Female Ruby-throated Hummingbird at feeder.

visited an empty feeder position on a window ledge several times every day in the summer of 1968, even though that position had not held a feeder since the summer of 1967. It might be argued that she discovered the wire loop on the window ledge in 1968 and associated it with other feeders in the yard, but this seems unlikely in view of her persistent visits without food reinforcement. The most convincing observations were made in late May of 1967 and 1968, before any flowers were in bloom and before any of the feeders had been filled and placed in their holders. Hummingbirds were observed visiting the empty feeder positions in the same sequence that was usually followed by experienced birds in previous summers. As these positions had no distinguishing features other than the empty wire loops to identify them, the most reasonable

explanation for this behaviour would seem to be that these birds were return migrants that remembered the feeder positions as sources of food from previous summers.

Although the conclusions drawn from these observations are speculative, there is at least circumstantial evidence that hummingbirds do remember the location of food sources from one year to the next, and that their "exploratory shifts" may often be directed towards a known potential food supply.

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SIGHT RECORDS OF THE COMMON SCOTER IN SASKATCHEWAN

by Stanley D. Riome, Nipawin

The Common Scoter (*Oidemia nigra*) has been expected in Saskatchewan, but has been elusive! Dr. W. Earl Godfrey of the National Museum of Canada wrote on November 5, 1970 to Dr. C. Stuart Houston:

"The records we have of the Common Scoter in Saskatchewan prove to be either erroneous or vague. Robert Bell (1883, Proc. of the Royal Soc. of Canada, Sec. 4:49-54) wrote: 'Mr. A. S. Cochrane has brought a male scoter (*Oidemia Americana* Swainson), supposed to be a sea-coast bird, from Reindeer Lake, in the centre of the continent.' We don't know whether the bird was on the Saskatchewan or Manitoba part of the lake but in any case the bird was very near to Saskatchewan. As there are records to the north, south, east, and west of Saskatchewan it is probably fortuitous that the bird has not been definitely known to appear in Saskatchewan occasionally."

Dr. Robert W. Nero reported the status of the Common Scoter in *Birds of the Lake Athabasca region, Saskatchewan* (1963:29), as follows:

"There is no known record of this species for Saskatchewan. However, in view of the taking of a specimen just over the border in Manitoba it may be well to list this bird. MacFarlane (1908-316) states that Joseph Hourston shot one on May 28, 1891, on the north end of Reindeer Lake at Lac du Brochet post (now Brochet). Brochet is located just 12 miles east of the boundary line. The species was recorded as 'fairly common' in extreme north-western Manitoba in 1947 (Mowat and Lawrie, 1955)."

The A.O.U. *Check-List*, 5th edition, 1957, describes the range of the Common Scoter as:

"Winters from Kamchatka and the Komandorskie Islands to Korea, Japan and eastern China (Fukien);

in America from the Pribilof and Aleutian islands to southern California; on the Great Lakes, and irregularly to Wyoming, Colorado, North Dakota, Nebraska, Kansas, Iowa, Missouri, Kentucky, Tennessee, and Louisiana; and on the Atlantic coast from Newfoundland and the Bay of Fundy south to South Carolina, rarely to Florida."

Because the occurrence of the Common Scoter in Saskatchewan had not been definitely established, I was excited to see a bird that I believed to be of this species on October 24, 1970. The day had been a fascinating one for me and my wife Gladys, since we had spent several hours observing the thousands of water birds resting on the southern reach of Tobin Lake where they enjoyed protection from hunters and the availability of nearby extensive grain fields. We then drove to the extreme northwest corner of the lake (16½ miles east and 16 miles north of Nipawin) and walked carefully out to a point. There, amongst the log debris, we immediately noted four birds. Two of these were mergansers which paddled vigorously away, while a Common Loon dove and soon attained a safe distance. The fourth bird, however, seemed quite unconcerned. I quickly set up a 15 x 60 variable telescope on a tripod, sensing that I had never seen a bird like it before. The only certain thing was that it was a diving duck, for it soon gracefully slipped under, then surfaced nearby. A view through the telescope allowed me to make a sketch in my field note book, together with the following notation: "Quite rounded head, dark bill with nail, dark grey-brown cap and hind neck; dirty white patch on sides of face and throat; no color other than grey brown on wings; stubby tail." The bird was assumed to be a female or immature Common Scoter. Early the following morning, my son David and I attempted to return to Tobin

Lake, but found the roads quite impassable after an all-night rain.

Seven days later, on October 31, I descended the steep eastern bank of the Saskatchewan River one mile north of Nipawin to study a raft of Lesser Scaups, and was rewarded by seeing another Common Scoter in the same plumage as the first. With the telescope it was possible to observe the following features in addition to those noted on October 24: "Belly lighter than the dark sides, back and wings; the tail projected parallel on the surface of the water and was reasonably long when seen from the side and not stubby as it appeared when seen from the rear; the tail was wagged horizontally and the neck stretched vertically several times; as the bird emerged from a dive, it seemed quite calm, while the scaups nervously raised their heads, moved them from side to side and paddled aimlessly for a few feet; the bill was quite angular on the lower edge of the lower mandible, rising sharply at its anterior 1/3, the upper surface of the upper mandible was curved" Late in the

afternoon of this day I returned with my son David and was able to locate the bird again and point out its characteristics to him.

The relative tameness of both birds, as noted above, is a characteristic of scoters. Walter H. Rich, for example, is quoted by Bent (*Life histories of North American wild fowl*, part 2, 1925) as saying of the scoters: ". . . Probably the least wary of the duck family, they may be approached quite readily"

I believe these two sightings were of different birds because the movement of water birds and gulls is eastward down the Saskatchewan River in the fall; the "Nipawin" bird was seen seven days later and 32 miles westward and up river from the "Tobin Lake bird. I am convinced that both were Common Scoters. The only bird with which they might have been confused is the Ruddy Duck. The full-bodied, heads-up, round-headed birds which I observed were distinctly different from the smaller, dish-billed "Andy Capp" Ruddies, with which I am thoroughly familiar.

FOX PREDATION ON A BIRD ISLAND

by **Hans Blokpoel**, Canadian Wildlife Service, Saskatoon

This note describes Red Fox predation on colonial birds and eggs at Backes Island, Primrose Lake, Saskatchewan. The colony of White Pelicans on this island is the largest in Canada (Vermeer, 1970b).

Backes Island is a strip of boulders and gravel with a sandy shore, lying three miles off the mainland. This island is about one-half mile long; its greatest width is approximately 150 feet. The northern fifth of the island is covered with poplars and thick underbrush, the central part being mainly a bare guano-flat with some scattered tree trunks and the remainder open and covered with low shrubbery.

In 1970 Great Blue Herons were breeding in live trees at the north end of the island and in rows of dead or

dying trees where the guano-flat slopes down to the lake. The pelican colony covered the guano-flat, which extended slightly into the trees. Double-crested Cormorants were found in small colonies among the pelicans, nesting on fallen trees rather than on the ground. The southern, open part of the island was occupied by gull colonies, mainly California and Ring-billed with a few Herring Gulls. Common Terns were nesting on the southernmost tip.

In late May 1970, P. P. Desfosses and J. R. Drury visited Backes Island. They counted 3,000 pelicans and reported seeing a fox. Accordingly, with the permission of T. Arsenault, Conservation Officer, Loon Lake, Saskatchewan, a five-man party led by C. W. Scott, Conservation Officer, Cold Lake, Alberta, and including myself, visited

the island on June 6 in hopes of eliminating the fox.

We found about 10 dead adult pelicans, usually with only the feet missing, but occasionally the head as well. Some of the missing feet and heads were found near the entrance of a fox den in thick underbrush on the north end of the island. Thirty-four newly built pelican nests close to the den were empty. About one-third of the cormorant nests and more than half of the gull nests had been destroyed. Some empty nests showed yolk stains, and many broken eggs were scattered over the island. The small tern colony seemed to have suffered few, if any, losses.

The clutch sizes of the pelican and cormorant nests were as follows:

	1 egg	2 eggs	3 eggs	4 eggs	Brown eggs or empty	Total nests
Pelican	405	1238	91	11	35	1780
Cormorant	8	5	11	2	23	49

We saw three adult foxes on the island. Two of them (a male and a nursing female) were killed. The stomach of the female contained grass and the toenail and skin of a webbed foot. The male was not examined.

On June 20 a flock of 200 presumably non-breeding pelicans was seen flying in V-formation over the Canadian Forces Base Cold Lake, about 40 miles south - southwest of Backes Island. Such a flight had not been seen in the previous seven years at this time of year (P. P. Desfosses, pers. comm.).

On June 27, Scott led another party including F. W. Lahrman, Saskatchewan Museum of Natural History, Regina, and G. Kemp, district biologist for St. Paul, Alberta, to the island in an attempt to kill the remaining fox(es). They found that only about 300 pelican nests still contained eggs, of which 80 to 90 per cent were rotten. All cormorant and many gull nests had been destroyed. The tern colony had

increased to over 300 nests (Lahrman, pers. comm.). Some pelicans were still incubating. No fox was seen, but poison pellets were left in known entrances of the den.

Palmer (1962) does not indicate that pelicans renest, but even if they do, it seems unlikely that the disturbed birds would have renested on Backes Island in July. Fewer than 100 young pelicans may have been raised on the island in 1970, compared to 800 - 1000 young in 1967 and about 1800 in 1968.

Although Primrose Lake is located in the middle of an Air Weapons Range of the Department of National Defence, it is not likely that the reproductive failure of the pelicans, cormorants and gulls can be explained by aircraft disturbance. In previous years reproduction was successful.

The Air Weapons Range is a Game Reserve. DND personnel are permitted to fish in Primrose Lake during the weekends. Very few DND people visit Backes Island in the shallow northern part of the lake, since it is dangerous when windy. Those who do go may well cause some disturbance, but that probably does not explain the almost total breeding failure. Military restrictions make it difficult for the public to visit the island.

Virtually no pesticides are used in the Primrose Lake area. Because the affected bird species probably had different wintering areas it seems improbable that pesticides caused the reproductive failure. The herons had nestlings on June 6.

It seems safe, therefore, to conclude that disturbance of the adult birds and destruction of eggs and, possibly, nestlings by the foxes were the main reasons for the almost complete reproductive failure of pelicans, cormorants and gulls on Backes Island in spring 1970. It seems likely that the foxes reached the island over ice. Vermeer (1970a) describes extensive predation by coyotes on island-nesting California Gulls and Canada Geese in Alberta.

I would like to thank Dr. J. B. Gollop, Canadian Wildlife Service, for

his comments on an earlier draft of this note.

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A SIGHT RECORD OF THE SCISSOR-TAILED FLYCATCHER FOR SOUTHERN SASKATCHEWAN

by Mrs. Jean E. Bradley, Milestone

The power line which crosses the Moose Jaw Creek beside our house at Milestone, about 30 miles south of Regina, is a favourite perch in summer for a Belted Kingfisher. Every day he sits there and watches for unwary fish swimming below.

On September 24, 1970 his place was taken by a stranger. In the morning sun this gray and salmon-pink bird could be seen clearly: its most distinctive feature was a long, forked, black-tipped tail—a tail much longer than the bird, and which opened and closed scissor fashion as it perched there on the line. The bird remained in this spot for some time, long enough and close enough to be closely seen by the naked eye and also through binoculars. Eventually it flew off, its very long tail still working scissor fashion as it flew.

With these distinctive features it could not have been anything else but the rarely seen Scissor-tailed Flycatcher.

Editor's Note: The Scissor-tailed Flycatcher (*Muscivora forficata*) has not previously been reported for Saskatchewan, but it has been recorded twice in Alberta and more than a dozen times in Manitoba. The locality nearest to the present record is Virden, Manitoba, about 160 miles east of Milestone. The present sighting thus is surprising only in that it appears to be the first one for Saskatchewan. This distinctive species, which nests as far north as central Kansas, is listed by Godfrey (*The birds of Canada*, 1966, p. 250) as "casual or accidental" in Canada, with

records as far as Quebec and New Brunswick. The Alberta records, both sightings, are for 1943 and 1952 (Salt and Wilk. *The birds of Alberta*, revised ed., 1966, p. 267). Manitoba records are for: 1880 (specimen), 1884 (sp.), 1899, 1924 (sp.), 1927, 1930, 1934, 1940 (two, including a sp.), 1949 (two), and 1952 (two, including a sp.) (Jehl and Smith, *Birds of the Churchill region, Manitoba*, 1970, p. 58; and other sources). A number of these records are for far northern localities, e.g., Fort Chipewyan, Lake Athabasca, Alberta, and Churchill and York Factory, Manitoba.

COVERED COMMON CROW'S NEST

by Wayne C. Harris, Box 93, Raymore

On May 2, 1970 I found what appeared to be a nest of a Black-billed Magpie, four miles south and one-half mile west of Raymore. The nest, which was still being constructed, was situated in a willow clump and was about six feet from the ground. It had all the appearances of a Magpie nest, including a well constructed dome-like roof. The only difference was that instead of having the mud cup typical of Magpies, it had a cup which was being constructed of strips of dry bark and some rootlets.

When the nest was checked again on May 14, a Common Crow was flushed from the nest which now contained three crow eggs. On May 24, five eggs were being incubated.

By June 15 all five eggs had hatched and by July 3 all the young had left the nest. I then checked the nest construction more carefully for traces of mud or anything else which would have indicated that the nest was originally built by a Magpie. The results were negative and as the nest was in excellent condition it would seem that it was built this year.

In a subsequent survey of literature I was unable to find any other record of a covered Common Crow nest.

Editor's Note: Might one suggest that the crow had probably taken over an abandoned covered portion of a Magpie nest?

PRESENT STATUS OF THE BLACK-TAILED PRAIRIE DOG IN SASKATCHEWAN

by **Larry Kerwin**, 2044 Francis Street, Regina, and
Cam G. Scheelhaase, Department of Natural Resources, Regina

The black-tailed prairie dog (*Cynomys ludovicianus ludovicianus*) occurs nowhere in Canada except in one small part of Saskatchewan. Although conservationists are concerned about the survival of this species (Novakowski, 1970), the status of the prairie dog population in this province has not been thoroughly studied. The most recent survey was made in 1962 when their population was estimated to be 45,000 animals inhabiting some 2,400 acres (Paynter, 1962).

During the summer of 1970, the Val Marie area was the location of sage grouse and pronghorn investigations and during this period, 16 prairie dog colonies or towns were located. The colonies varied in size from 300 acres to less than one acre. All but one of the colonies were active. The distribution of these colonies is shown in Figure 1. The location and calculated size of each colony, and the estimated number of burrows in each are shown in Table 1.

The number of burrows in each town was estimated according to the formula established by Koford (1958) on the basis of his findings during a survey made in Nebraska. Koford established

an average number of 20 burrows per acre. On the basis of a random sample of four separate towns in Saskatchewan we concluded that this figure was generally valid.

While the number of burrows present is a function of the number of animals in the colony, it is not a good index because it reflects past as well as present conditions. According to Koford, the number of burrows in an area indicates the maximum concentration of prairie dogs during the season of highest precipitation, from April to September, for most holes are started then. Consequently, we did not estimate the number of dogs in a colony by the number of burrows. To obtain a more accurate census of the population, Koford suggests counting the animals an hour or two after sunrise or before sunset, but we were unable to carry out such a count this year for various reasons. We therefore used an average density figure established by King (1955) during a three-year study in South Dakota. Although King's data was established in South Dakota, it was nevertheless felt that it gave a useful estimate of the present Saskatchewan population of prairie dogs.



Photo by Fred W. Lahrman

Black-tailed Prairie Dog

Table 1. Prairie dog colonies in Saskatchewan, 1970.

Colony	Location	Size (acres)	No. of Burrows
A	Parts of Sect. 34 of 2-13-W3.	75	1500
B ₁	Parts of NE $\frac{1}{4}$ Sect. 23, NW $\frac{1}{4}$ Sect. 24, SW $\frac{1}{4}$ Sect. 25, and SE $\frac{1}{4}$ Sect. 26 of 2-13-W3.	180	3600
B ₂	South $\frac{1}{2}$ Sect. 25 of 2-13-W3.	75	1500
C	SW $\frac{1}{4}$ Sect. 5 of 3-12-W3.	1.5	30
D	NW $\frac{1}{4}$ Sect. 24 of 1-13-W3.	5	100
E	NW $\frac{1}{4}$ Sect. 14 of 2-12-W3.	1	19
F	SE $\frac{1}{4}$ Sect. 22 of 2-12-W3.	2	35
G	E $\frac{1}{2}$ Sect. 5 of 2-11-W3.	85	1700
H ₁	Parts of NW $\frac{1}{4}$ Sect. 14, NE $\frac{1}{4}$ Sect. 15, SE $\frac{1}{4}$ Sect. 22, and SW $\frac{1}{4}$ Sect. 23 of 2-11-W3	130	2600
H ₂	SW $\frac{1}{4}$ Sect. 22 of 2-11-W3.	3	32
I	Parts of S $\frac{1}{2}$ Sect. 10 and N $\frac{1}{2}$ Sect. 4 of 2-11-W3.	110	2200
J	Parts of NW $\frac{1}{4}$ Sect. 27, NE $\frac{1}{4}$ Sect. 28, SE $\frac{1}{4}$ Sect. 33 and the W $\frac{1}{2}$ Sect. 34 of 1-11-W3.	230	4600
K	SW $\frac{1}{4}$ Sect. 25 of 1-11-W3.	1	19
L	SE $\frac{1}{4}$ Sect. 17 of 2-10-W3.	45	900
M*	NW $\frac{1}{4}$ Sect. 10 of 1-10-W3.	0.5	10
N	Parts of NW $\frac{1}{4}$ Sect. 6, SW $\frac{1}{4}$ and NE $\frac{1}{4}$ Sect. 7, SW $\frac{1}{4}$ Sect. 17 and SE $\frac{1}{4}$ Sect. 18 of 3-10-W3.	300	6000
TOTALS		1,244	24,845

*Not Active.

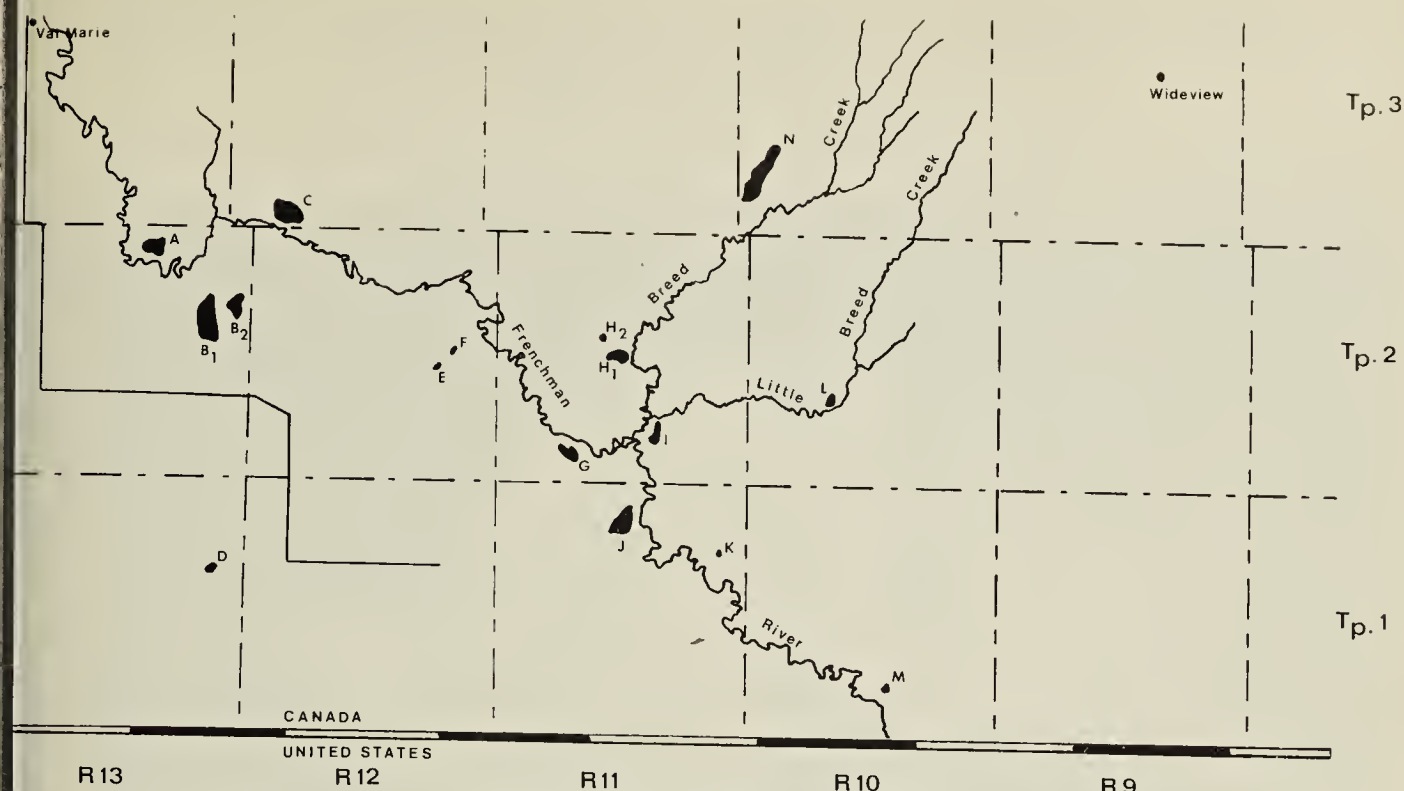
During the summer, we found and examined a total of 16 colonies. In the 16 colonies censused, we estimated a total of 24,845 burrows occupying a total area of about 1,244 acres. On the basis of this information, and estimating an average density of 8.7 animals per acre, the total population was estimated to be 10,823 animals. Even if calculated on the basis of 15.0 animals per acre, which King reported to be a *maximum* population density for the species in his South Dakota study, the total estimated population would be only 18,660. Both these figures are well below Paynter's estimate of 45,000 animals.

The 16 colonies that were found in the summer of 1970 may not represent all the colonies present in the area. However, the figure represents an increase in the number of colonies that have been previously reported. Paynter (1962) reports eight colonies. Beck (1958) reports that there are eleven or more distinct colonies. Novakowski (1970) makes reference to "a few live colonies."

A number of factors, of course, are influential in creating fluctuations in the prairie dog population. In part, changes are due to poisoning carried out by the ranchers to protect their grazing lands. If poisoning is not carried out continuously in a colony, however, there are usually enough animals left to keep the colony alive. One example of this is the colony shown on the map as Colony J, which was thought to have been poisoned out in 1962 (see *The Blue Jay*, 20:125) and has not been subject to further control. It now has more animals than in 1962 and is still growing.

But even without the influence of man, the number of animals in a population fluctuates widely. Sometimes the population of a dog town dwindles or disappears in the absence of an obvious cause such as drought, flood, disease, or predation (Koford, 1958). Thus there is always the possibility that a combination of such factors could wipe out any or all of the dog towns present in this province.

At present, only one colony is afford-



The distribution of prairie dog colonies in Saskatchewan.

ed complete protection. Colony B₁ has been preserved by the Saskatchewan Natural History Society and is classified as a Wildlife Refuge under the

Department of Natural Resources Game Act. Colony N is within the confines of a community pasture in which hunting is restricted throughout most of the year.

While the remaining colonies are probably in no immediate danger of extinction, some conservationists consider the prairie dog to be endangered (see Novakowski, 1970). If this is the case, then some sort of protection is warranted for the other colonies, but the arrangement should take into account the interests of both conservationists and ranchers. For example, the suggestion of Paynter (1962) to declare land being occupied by prairie dogs as wild land and suspend the lease fee seems to be a rational solution. As of this date however, this apparently has not been done.

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Photo by Fred W. Lahrman

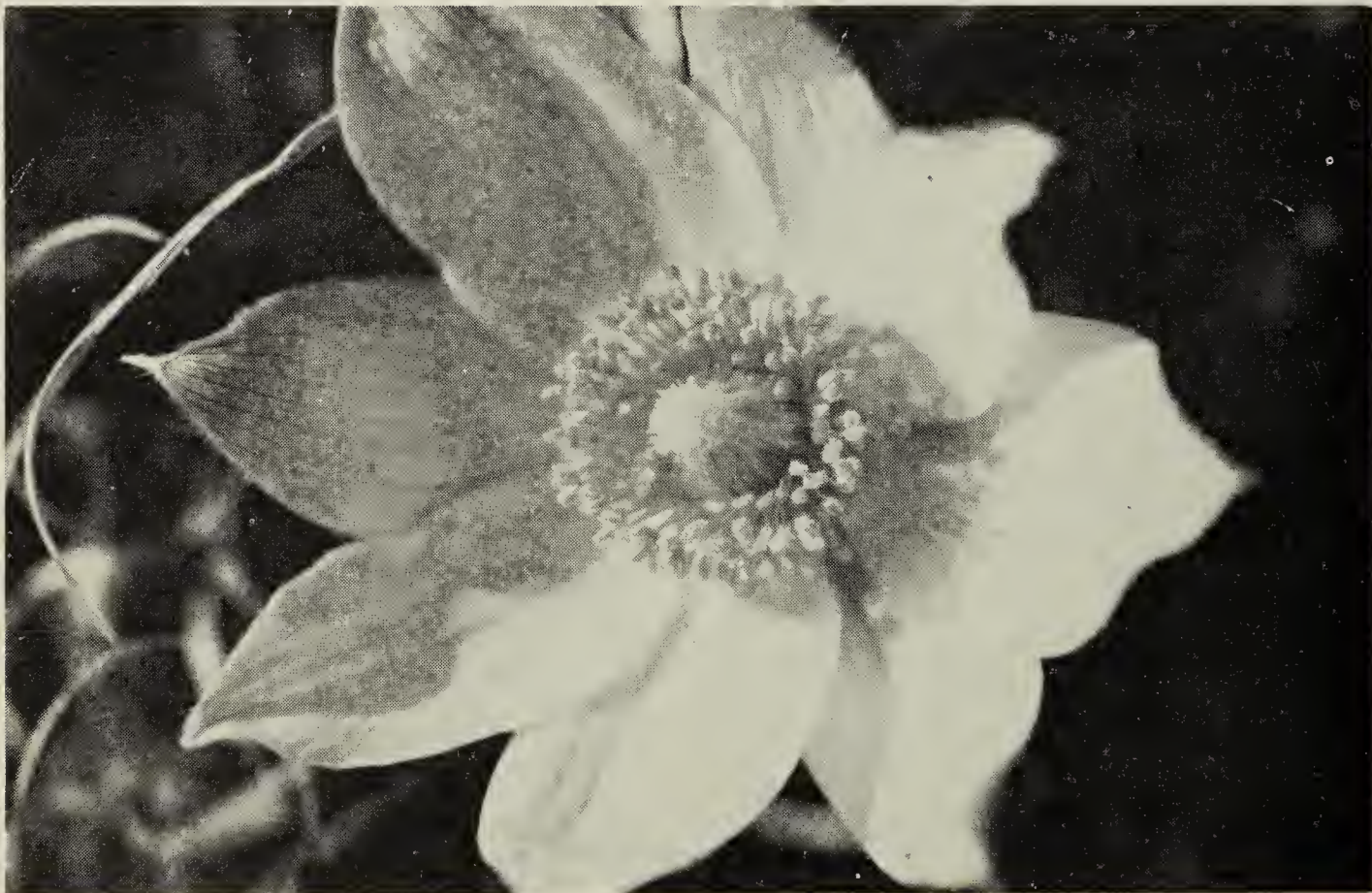
Black-tailed Prairie Dog

EARLY SPRING FLOWERS

Photographed by **Fenton Vance**, Regina



Moss Phlox



Crocus Anemone

MIMULUS GLABRATUS HBK. var. FREMONTII (Benth.) Grant

An obscure species from the Eastern Qu'Appelle Valley, Saskatchewan
by B. de Vries, Fort Qu'Appelle

I collected *Mimulus glabratus* HBK. var. *Fremontii* (Benth.) Grant (Fig. 1), at two separate locations in eastern Saskatchewan in the Qu'Appelle Valley on August 28 and 30, 1970. Well established populations occur along the margin of a running stream and in a shallow rivulet rooted in mud, in semi-shaded or open areas. The localities are as follows: #4970 (August 28, 1970), six miles west of Round Lake, in shallow rivulet; #4971 (August 30, 1970), 14 miles north of Whitewood, on wet margins of running stream. The voucher specimens indicated above are in the herbarium of the author.

This species ranges through North America, from Manitoba to Mexico, west to Montana, Nevada and Arizona, and it occurs in southeastern Saskatchewan at two separate localities.

Earlier reports on this species were made by Criddle, who collected the only known specimen at Aweme in Manitoba (Grant, 1924) and by Fraser *et al.* (1954) and Breitung (1957) who reported on specimens from Saskatchewan. Voucher material was examined by the author and pertinent data is as follows: Herbarium #20629, *Mimulus geyeri* Torr., R. C. Russell, s. 3921, August 25, 1949, Whitewood, along stream in wooded ravine leading into the Qu'Appelle Valley; Herbarium #20628, *Mimulus geyeri* Torr., R. C. Russell and R. D. Tinline, August 25, 1949, Whitewood, Saskatchewan, bed of spring-fed rivulet in ravine leading into Qu'Appelle Valley. Voucher specimens are located in the Fraser Herbarium, University of Saskatchewan, Saskatoon. Another collection is dated: *Mimulus geyeri* Torr., R. C. Russell and R. D. Tinline, 11-8-48, Round Lake, Whitewood, spring-fed rivulet in ravine leading into Qu'Appelle Valley. Voucher specimen is in the Laboratory of Plant Pathology, Department of Agriculture,

Saskatoon, Saskatchewan. This specimen is revised by Breitung (Hudson, pers. comm.) to *Mimulus floribundus* Dougl.

The author, however, upon examining this specimen, believes it to be *Mimulus glabratus* var. *Fremontii* on basis of comparison with his own collection. Boivin (Boivin, 1964, in Cody pers. comm.) has since revised the duplicate of this specimen (#4481, Herbarium, Canada Department of Agriculture, Ottawa) to *Mimulus glabratus* HBK.

The material under question is rather scanty, and although differences between *Mimulus glabratus* var. *Fremontii* and *Mimulus floribundus* are apparent (Grant, 1924, pp. 195, 196, and 216), they are less well defined between the species and its variety *Fremontii* (Grant, 1924, pp. 145, 188, and 191). Paucity of material makes determination somewhat uncertain.

It is clear that the 1949 collections came from the same area, but the collection site of the 1948 material is not clear. It is not certain whether the collectors meant "Round Lake" or "a position north of Whitewood" for their collecting station. The author assumes that all three collections came from the same general area, i.e. "Whitewood, spring-fed streamlet in ravine leading into the Qu'Appelle Valley."

These collections undoubtedly form the records on which Fraser *et al.* and Breitung based their listings, and it remains puzzling why Budd in his *Wild Plants of the Canadian Prairies* did not list the species. Perhaps the fact that *Mimulus glabratus* var. *Fremontii* occurs in rather selected (calcareous) and obscure locations plus its diminutive flowering habit, tends to make it not readily discernible in the field.

It is interesting to note that although *Mimulus glabratus* var. *Fremontii* is listed under various

synonyms (Grant, 1924), the quoted data list the species under *Mimulus geyeri* Torr. rather than under any one of the synonyms. Hudson (pers. comm.) writes: "Doubtless it was all determined by R. C. Russell, who relied on Rydberg (Rydberg 1917) for nomenclature."

Measurements for corolla and calyx taken on #4970 and #4971 compare favourably on the average with those given in literature and examined voucher material for calyx, but are somewhat smaller for corolla measurements (1.3 mm viz. 1.5 mm). Measurements on calyx of fruiting material appear to conform with those given by Russell and Tinline (Hudson, pers. comm.), i.e. .7 mm average.

The southeastern Saskatchewan entities could indicate a westward range extension of the species, although collections from Round Lake (#4970) seem to be the apparent limit to such extension, as careful scrutiny revealed no additional plants west of this locality. Perhaps *Mimulus glabratus* var. *Fremontii* belongs to that group of interesting plants whose western geographic range limit apparently lies in the vicinity of Round Lake. Speculations as to whether soil, topography, or climate are the limiting factors here are set forth in a study on range extensions into southeastern Saskatchewan (de Vries, unpublished).

The systematics of the genus, as well as its history and geographical distribution are admirably discussed by Grant (1924), and the following notes are abstracted from his work. *Mimulus glabratus* var. *Fremontii* is mainly a calcophyte, favouring shallow water or muddy places, often along banks of running streams, and is therefore decidedly hydrophytic. It belongs to a closely connected group which is polymorphic and plastic and has wide distribution. The plant is annual and is reproduced by seeds rather than by fragmented rooted stems. For the connoisseur of exotic foods *Mimulus glabratus* (and presumably its variety) is edible, and reputed to have an agreeable taste for salads or as greens cooked in soup.



Photo by B. de Vries
M. glabratus, #4971, August 30, 1970

Acknowledgements

The author is grateful to R. I. Tinline, Head, Plant Pathology Section, Canada Department of Agriculture, Saskatoon, Saskatchewan, for the loan of voucher material, and to John H. Hudson, Research Associate, Fraser Herbarium, University of Saskatchewan, Saskatoon, for his helpful information on *Mimulus* collections.

The author is also indebted to W. J. Cody, W. G. Dore, and J. McNeill of the Plant Research Institute, Canada Department of Agriculture, Ottawa, Ontario, for their assistance in loaning reference material and photostatic copy of voucher material.

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The Blue Jay Bookshelf

FIELD GUIDE TO THE NATIVE TREES OF MANITOBA. 1970. By E. T. Oswald and F. H. Nokes, Forest Research Laboratory, 25 Dafoe Road, Winnipeg 19, Manitoba 68 pp. illus. b. & w. Free. Currently out of print.

Though there are many books on trees available from different sources, few of these confine their coverage to the prairies, much less to each individual province. Such a scarcity is distressing for anyone who wishes to have a local reference that he can use quickly without reading pages of extraneous material.

This booklet contains descriptions and illustrations of all the trees in Manitoba. (A tree is defined as a woody plant with a recognizable crown, growing to a minimum height of 15 feet, with a bole diameter of not less than two inches.) The identification key is a very simple one which contains a two choice system. One is for twigs (winter) and the other for leaves (summer). There is also an illustrated glossary, and a pleasing scarcity of technical language.

I believe this booklet will serve a very useful purpose in Saskatchewan in as much as the species are mostly the same in both Saskatchewan and Manitoba. — A. J. Hruska, Gerald Saskatchewan.

ENVIRONMENT 1975. POLLUTION IN ALBERTA. 1970. Edited by D. A. Brookes and M. T. Myres. The Biological Sciences Society, University of Calgary. i plus 62 pp. Available from the Biological Sciences Society c/o Department of Biology, University of Calgary, Calgary 44, Alberta. Price \$1.00.

This book is an edited version of a symposium sponsored by the Biological Sciences Society of the University of Calgary on February 7, 1970. After a short foreword by the Society's President, D. A. Brookes, the book commences with an introduction to the symposium by M. T. Myres. This is followed by five papers on various aspects

of environmental degradation in Alberta, a panel discussion, and a section on audience participation. The book closes with two reference lists on environmental problems, one specific to Alberta, the other general, and short biographies of the panelists.

In his introduction, Tim Myres sets the course of the symposium by commenting on the recent upsurge of public awareness of environmental problems with the resultant immense volume of literature on various aspects of the subject. He notes that this has resulted in an additional problem for, since no individual can pretend to have a total grasp of the field, discussion is needed among many people of widely diversified backgrounds. Finally, he stresses that combating pollution depends on self-discipline and the formation of personal habits.

The first of the invited speakers, J. W. Kerr, in "Mining and erosion pollution in Alberta," points out that strip mining problems are easier to solve than most other problems of environmental deterioration, because the coal mining industry is the only one involved. As a result only one level of government (provincial) need be consulted, and corrective techniques are relatively simple and inexpensive if planned ahead. He emphasizes that to control strip mining properly the control must be in the hands of a government department interested in conservation, *not* one interested in mining production. Each mining company, he feels, must submit a plan before starting to mine.

D. G. McDonald follows with "Another Alberta," a tour of environmental "tragedy" throughout the province. This paper brings the many environmental problems into local focus. His paper, incidentally, prompts a comment by Myres, deploring the lack of proper documentation of local problems.

J. T. Nalbach, speaking on "Management possibilities for Alberta resources," begins by echoing Myres'

comments, regretting the lack of data showing how things were *before* pollution. His paper consists of a "brief exposition of ecology," distinguishing between renewable and non-renewable resources, emphasizing the difference between direct economic costs and total environmental values, and comparing natural systems to those modified by man. He also comments on sociopolitical aspects of pollution control.

The next two papers, "An engineering viewpoint" by N. G. McDuffie, and "Pollution Politics" by A. L. Harris, set out to give some clue to solutions. McDuffie, referred to by Myres as a pollution "refugee" from the United States, stresses the role which is played by individual complacency in fostering pollution. Concerning such complacency, he says, "It puts those industries and municipalities that do not care into unfair competition with those which voluntarily introduce pollution control devices. It makes for vague laws and guidelines which encourage irresponsibility." After briefly discussing nine major environmental problems, he recommends that Albertans must be intolerant of pollution, must insist on fair and equitable anti-pollution laws, and must be sure of cleaning up their own pollution. A. L. Harris distinguishes between two types of pollution—"dirty" and "deadly." The former is readily perceived, the latter not easily detected but lethal. He then discusses the potential of each level of government—municipal, provincial and federal—in combating pollution. He also comments on the role of international politics, and stresses that all politicians should be asked directly what they plan to do about the environment if elected. (Myres suggests voting for an individual rather than for a party, and voting *for* environment 1975.)

In attempting to evaluate a book of this nature, one must recall Myres' remarks on the volume of literature on the same subject, and ask whether another is even worthwhile. For this book, I feel the answer is a definite "yes". It puts pollution problems in a local perspective for Albertans. Its low

price makes its contents available to virtually everyone. Its brevity and short lists of further reading material combine to bring much relevant information to even the least informed. Its superb organization makes it a useful reference for even the seasoned ecologist who wants some handy, concise statements on one problem or another. Nalbach's paper, for instance, is such a beautifully concise lecture on the ecological principles involved that it, alone, is worth the price of the book.

I heartily recommend this book to all Albertans, to anybody who wants a concise summary of pollution problems and possible solutions, and especially to anybody who wishes to organize a similar symposium. The message of the entire book is well summarized by Nalbach's statement (p. 19), "Any plan of economic conservation must take into consideration all of the costs and all of the revenues, whether or not they directly accrue to the planning agent. We are dealing with the difference between a private maximum and a social optimum in resource use."—*Martin K. McNicholl, Winnipeg.*

THE WILD DOGS. A story of wolves in Manitoba. 1969. Reprinted 1970. Text by Allan Murray. Drawings by Clarence Tillenius. Published by the Province of Manitoba, Dept. of Mines and Natural Resources Conservation and Extension Board. Available on request from Conservation Extension Branch, Box 11, 139 Tuxedo Blvd. Winnipeg 29, Manitoba.

This attractive seven-page booklet does not pretend to be a complete textbook survey on wolves. Rather it briefly and concisely describes the northern Canadian timber wolf, its size and strength, its hunting habits, its effect on moose and deer, and other interesting details of its life and growth. Almost everything it says would be equally applicable to Saskatchewan and Alberta.

The writer opens with a quote from an old and highly imaginative account of an attack by a pack of wolves against a herd of white-tailed deer. This account is in the best traditions of

many old writers, both in America and Europe. He then goes on quite dispassionately to explain the errors in this account, errors which have had so much to do with the ordinary man's misjudgement of these interesting animals. He mentions that these predators, weighing as they do up to one hundred pounds, do really require large meat animals as prey in order for a pack to survive.

This may run a little contrary to the ideas of those idealists who like to think that wolves only on occasion eat prey larger than mice and varying hares, although such small game are, of course, taken also. The truth would seem to lie halfway between the beliefs of wolf-supporters and their opposite extreme, the wolf-haters who condemn the animal as a bloodthirsty and constantly wasteful destroyer of big game and livestock.

The author briefly mentions that wolves are today more numerous in certain areas than they were 70 years ago. This is probably also true in adjacent Saskatchewan. His remarks on the "old time" stories, current in three continents, which concern themselves with the ferocity of wolves towards humans, are both timely and accurate. It is quite astonishing to find that there are still people who have a mortal fear of these wild dogs.

Regarding the growing-up of young wolves, the author states that experts now agree that parent wolves do not "teach" their young to hunt, as was formerly believed. To say "teach" may smack of anthropomorphism, yet perhaps the "old-timers" are not so far wrong, except that it might be truer to say that the young "learn" to hunt by accompanying their parents in the pursuit of game; and "learn" in this case may be no more a conscious act, as with children in school, but rather an act of "imitation" — just as a child, too young to learn, will "imitate" an elder. Again, I think, the truth lies somewhere in between.

The author, and rightly, stresses the fact that wolves quite naturally attack the weaker animals in a herd, and certainly insofar as domestic cattle are

concerned, I can bear this out. It is because cattle, as a rule, put up less resistance than wild game that wolves can sometimes pose a real threat to the rancher. A wise stockman, knowing this, will never allow his cattle to become too accustomed to dogs for by familiarity they lose some of their awareness to danger from wolves and other predators.

In Manitoba, we learn, control of wolves is based on the protection of livestock, while in unsettled regions they will be given equal status with other wild animals. This is an eminently sensible decision.

It is extremely pleasant to read such thoughtful and bias-free statements as: "Nature is not just wolves or deer, it is wolves and deer." Certainly this booklet should help to clarify a good deal of rather muddled thinking, to the benefit of us all, and more especially to those of us who have had the thrill of seeing and hearing one of the most typical larger mammals of our northern woods — *Canis lupus*.

A word on the illustrations. These are from the pen of that well-known wildlife artist, Clarence Tillenius. They will be recognized as his work at first sight, for few artists have caught the characteristics of wild animals as well as he. These sketches add very considerably to the value of this booklet.—
R. D. Symons, Silton.

NORTH TO CREE LAKE. 1970. By A. L. Karras. Illustrated by Laszlo Kubinyi. Trident Press, New York. 255 pp. Price \$6.95.

The dust jacket of *North to Cree Lake* claims that the author "shares his love for the wilderness as it was, and may never be again, unless we reshape our values and attempt to restore what we have almost lost." The statement is misleading for it tends to confuse the author's purpose with what might be the unintentional effect of the book on today's conservation-oriented readers. Mr. Karras himself makes no attempt to exhibit either a great "love

for the wilderness" or a zeal for preserving it.

North to Cree Lake is the account of the experiences of two brothers, who, in order to escape the depressed conditions of the Thirties, go north to earn their livelihood by trapping. For the most part the author describes their adventures in a factual manner and his reporting is forthright and honest. He also includes a good deal of information about the country between Big River and Cree Lake, Indian life and customs and, of course, the animals of the area.

Interestingly enough, Mr. Karras's most vivid writing occurs when he is recounting events involved with hunting; the grim sight of dead and dying animals obviously made a deep impression on him. Yet the abundance of references to shooting game gives a certain monotony to the book at the same time as it causes the reader to speculate on specific hunting practices which the author describes. There are, for instance, sections devoted to the poisoning of wolves and the attempted hunting of caribou from moving aircraft.

One hunting passage is particularly revealing: "In October we had shot two moose so that we did not lack meat . . . In February, back of the river in an area we had never penetrated, Ab, while tracking a moose, came upon a tiny herd of caribou and by some pretty good shooting knocked down three animals. Next day, coming in with the dog team I sighted another and was able to shoot it. This small band had evidently wintered here . . . We were of the opinion that these animals had possibly slipped down from the main herds . . ."

The publisher (to quote the dust jacket again) believes that *North to Cree Lake* brings to the reader "a sense of urgency about protecting whatever is left of our environment." The preceding excerpt from the book points the accuracy of the publisher's remark, though possibly not quite in the way the advertisement intended.—*J. M. Wagner, Regina.*

THE WORLD OF THE BISON. 1969. Text and photographs by Ed Park. Edited by John Terres of Living World Books. Published by J. B. Lippincott, Philadelphia and New York. 161 pp. illus. Price \$4.50.

Ed Park was born in Oregon, where, after receiving a B.S. degree in Fish and Game management and an M.S. in Wildlife Management from the State College, he became, in 1961, a full-time free-lance photographer and writer on outdoor subjects.

In *The World of the Bison* the author includes studies concerned with an area extending from Mexico to Alaska; for added information he draws on resource material from refuges, parks, game departments and museums. At the outset he recognizes two subspecies, the plains bison and the wood bison. (The common name "buffalo" derived through the normal sequence of word corruption from a term originating with the French voyageurs actually belongs to the water buffalo in Asia and the African buffalo.)

These bison the author finds impressive and fascinating as he follows them through the calendar year—tracing their spring and fall wanderings, recording their enjoyment of lazy summer days and their stolid indifference to winter's onslaught. In an attempt to convey the size of the bison population at the time the first white men arrived, Park suggests that if the bison were to pass by a given point single-file, one animal every two seconds, it would be the end of the fourth year before the tired tallier saw the tail of the last shaggy beast—count 63,115,200. This number, in the author's opinion, is the soundest estimate available.

About the year 1830 the white man found a market for robes and took a heavy harvest of bison from mid-October to mid-December. Forty years later, when a market for leather developed, this harvest became a year-round activity.

In 1871 conservation-conscious people became alarmed but any protective bills that were passed were too late or not enforced. In 1874, in the United

States, both the House and the Senate passed a bill that would protect the females and do away with wanton destruction, but President Grant refused to sign it. Secretary Delano was quoted as saying that he would rejoice when the last bison was exterminated. General Sheridan appeared before the assembly and suggested that every hunter be given a medal with the figure of a dead buffalo on one side and that of a discouraged Indian on the other. He added, regarding the hunters, "These men have done in the last two years, and will in the next year, do more to settle the vexed Indian question than the entire regular army has done in the last 30 years . . . It would seem that the government regarded the bison as vermin. Nevertheless, the author tells us that there were other causes for the callous slaughter of the animal and he carefully considers the part played by man's greed, the coming of the railroad, the improved "buffalo guns", the westward movement of civilization and the bison's unadaptability.

By 1900 the total population of living bison in North America had been reduced to less than 250 in captivity and fewer than 300 in the wild, the latter all in Canada. Against this background one wonders how any could have survived but survive they did. Effective protective legislation was

passed, game wardens posted and in the United States, Congress apportioned money to buy bison from private herds to replace some of those that had been destroyed in Yellowstone Park. Their number in North America has been increased to over 30,000 which includes the largest free-roaming herd in the world, possibly 17,000 animals. They wander at will in or near the world's largest national park, Wood Buffalo, consisting of 11,072,000 acres of unfenced wilderness in northern Alberta and the Northwest Territories of Canada.

Mr. Park has used almost 100 photographs to complement his text; he even lists the photographic equipment that he employed. A bibliography and an index enhance the value of the information in the book; statistics are interestingly presented. The author's sense of conservation is contagious and whether you are a conservationist or not it is likely that you will find yourself reading the book a second time. This account of the near destruction of a species should help educate man to the threat that man himself represents to these other creatures that he considers his enemies or competitors. It also shows that man has the ability, sometimes, to see and correct his mistakes — if he recognizes his error in time. — V. J. Harper, Saskatoon.

Letters and Notes

WINTER SIGHTINGS OF THE AMERICAN GOLDFINCH IN MANITOBA

Just after Christmas, 1970 I received a report of a flock of birds that were coming to the feeding station of Mr. and Mrs. R. Lissaman at their home overlooking the Assiniboine and Minnedosa River valleys about 10 miles west of Brandon. I went out to the Lissaman home on New Year's Day hoping to observe and identify the birds. However, it was rather late in the afternoon and, though the birds had been there earlier, they were gone.

The birds were described to me as small birds with clear colours, white

wing bars and white edgings on wing feathers, V-notched tail, yellowish on throat and under wings, clear greyish belly, small bill, chestnut to olive on head and back, with no streaking. Looking through Peterson's *Field guide to the birds*, we concluded they were not any of the usual winter birds such as redpolls or Pine Siskins. When I returned home, I studied other bird books, and concluded that the birds at the feeding station must be American Goldfinches.

On January 10, 1971, accompanied by Mamie McCowan, I paid another visit to the Lissamans, arriving about 12:45 p.m. This time we were fortun-

ate in seeing a flock of up to 13 birds. Seeing them, and hearing them singing and calling in typical Goldfinch manner, we could not be mistaken about their identity. Mr. Lissaman told us that they come every day to the feeding station where they consume quantities of small sunflower seeds, and that he has counted as many as 15. I saw the flock again on two more occasions, on January 18 and on January 24, when 14 were counted.

Mr. H. W. R. Copland of the Manitoba Museum of Man and Nature later gave me a reference to Goldfinches recorded in Manitoba during the winter, taken from A. G. Lawrence's "Chickadee Notes" in the *Winnipeg Free Press*, February 21, 1929: "J. R. Morton, our leading Manitoba bird bander, saw a female Goldfinch with a banded Redpoll on February 2 at his trap in East Kildonan. The Redpoll entered the cage but the Goldfinch did not. The Redpoll was one banded on December 17, 1928, by Mr. Morton."—*Barbara Robinson*, 1441 Eighth Street, Brandon, Manitoba.

EUROPEAN VISITORS TO BRITISH COLUMBIA

The appearance of two European bird species in British Columbia last fall—the Wheatear and the Spotted Redshank, provided great interest for local birders.

The Wheatear was noted when two of our local birders were searching the periphery of the Victoria Airport on October 10, 1970 for traces of the Gray Partridge, 500 of which were released around there in 1908 and 1909. They flourished for some decades, then disease reduced their numbers to as low as a dozen or so in 1955. We saw six partridge last spring, but on October 10 none was found. However, a bird on the roof of a small hangar attracted the attention of the two birders. It was the size of a bluebird and had the same characteristics, flying to the ground after insects and up again to the roof. Closing in on the bird, they were astonished to find that it was a Wheatear, the inverted black T on the tail being unmistakeable. It was after-

wards seen and photographed by many of the members of our club.

The Spotted Redshank appeared at the Reifel Wildlife Refuge, situated on an island at the mouth of the main channel of the Fraser River about the middle of October, and stayed there about a month. It flew from one mud-flat to another along the open sea, and to the refuge during the high tides. We saw the bird on October 31, and at that time it was with about 30 Long-billed Dowitchers and 150 Dunlins. It was tame enough for close-up photography, and was seen by many interested observers who came from many places in B.C. and the United States.—*Albert R. Davidson*, 2144 Brighton Avenue, Victoria, B.C.

SHUSWAP WELCOME

The Shuswap Naturalist's Club extends a warm invitation to members of the SNHS to get in touch whenever they are in Shuswap country. Meetings are held the third Tuesday of every month and field trips are organized.

At Sorrento, contact Deryk Beacham president. And in Salmon Arm, Deane Munro, vice-president. Phone 832-3143. Anyone holidaying at Shuswap Lake Park should ask for Sandy Rathbone at the Recreation and Conservation Department of the Parks Branch Scotch Creek. Phone 955-2241.

You may be surprised how many former and present members of the SNHS you will find among the Shuswap Naturalists!

As a member of both SNHS and SNC I hope that Saskatchewan naturalists will call in to say hello to us, too. We have been sorry to hear from different members that have been through our area but who didn't know "where in the Shuswap to find us."

For the records, then, our CEDAR HEIGHTS sign and map is on the Trans-Canada Highway, 17 miles west of Salmon Arm—adjacent to a Lookout Point. If the office hasn't been opened there yet follow the direction on the map to the Cedar Heights Information Centre. The phone number is 675-2525 or 675-2593.—*Ruth M. Chandler*, Sorrento, B.C.

CHURCHILL — A NATURALIST'S MECCA

A lifetime of searching would fail to find a more crusty character than "Smitty" (Irwin H.) Smith, long-time solitary trapper and trader, and his gracious wife Blanche Smith, botanist, historian and conservationist who joined Dr. Joseph R. Jehl in writing *Birds of the Churchill Region, Manitoba*. This grand Churchill couple epitomize the Arctic as intolerant and unforgiving of the ignorant while compassionate and generous to the malleable.

In August 1970 my wife Gladys and I spent four days at Churchill admiring the Eskimo Museum and its intense curator, M. Volant, O.M.I.; reliving the history of Fort Prince of Wales across the estuary; chatting with Eskimos and handling their works of art at the village Akudlik; communing with a cross-section of scientists, natives and residents in the Hudson Hotel pub; climbing over the extensive refuse dumps, where dead automobiles, not worth the cost to ship out by rail to Thompson, join the host of spectral derelicts on the tundra; inspecting the cavernous merchant ships waiting impatiently beside the incongruous grain elevators; standing and listening to some forlorn Indians

at the whale processing factory, "closed down because the whales are full of mercury"; and searching the flower-strewn muskeg and tundra, moss and lichen-covered rocks for birds or mammals or fossils or whalebones or anything of fascination to a prairie resident.

While the following 44 species of birds (of which 11 were lifers for us) were recorded between August 3-7, 1970, such a moment was merely an apéritif to a multi-course meal—and we're still hungry!

Arctic Loon, Red-throated Loon, Mallard, Redhead, Oldsquaw, Common Eider, White-winged Scoter, Surf Scoter, Common Scoter, Red-breasted Merganser, Pigeon Hawk, Semipalmated Plover, Killdeer, American Golden Plover, Ruddy Turnstone, Whimbrel, Spotted Sandpiper, Lesser Yellowlegs, Pectoral Sandpiper, Baird's Sandpiper, Least Sandpiper, Short-billed Dowitcher, Stilt Sandpiper, Hudsonian Godwit, Northern Phalarope, Parasitic Jaeger, Herring Gull, Thayer's Gull, Bonaparte's Gull, Arctic Tern, Horned Lark, Tree Swallow, Robin, Water Pipit, Starling, Yellow Warbler, Rusty Blackbird, Common Redpoll, Savannah Sparrow, Tree Sparrow, White-crowned Sparrow, Song Sparrow, Lapland Longspur, Smith's Longspur.—S. D. Riome, Nipawin.



Photo by S. D. Riome

Eroded precambrian shield; Fort Prince of Wales across the Churchill River.

IMPRESSIONS OF A TRIP TO LAST MOUNTAIN LAKE

[Editor's Note: In the late summer of 1970, Annetraut Panse came from Germany to spend three months as an exchange student with a Regina high school student. The daughter of a biologist in a German gymnasium, she was interested in natural history activities in Saskatchewan. On one occasion, she accompanied Margaret Belcher on a trip to see the Sandhill Cranes at the north end of Last Mountain Lake.]

In the middle of September, Miss Belcher invited Jane Wilhelm and me to observe the cranes in the region of Last Mountain Lake. Since Jane and I are very interested in birding, we were happy to receive this invitation. We left Regina and went by car up to the northern part of the lake, equipped with binoculars, bird guides and warm clothes. Miss Belcher told us on our way that it was the time that the cranes leave the northern regions and start flying south. Several times on our way, we stopped the car to watch Red-tailed Hawks, Sparrow Hawks, a Mourning Dove, a Yellow-shafted Flicker, three Mountain Bluebirds and birds of several other species. All these birds were easily observed because they were either sitting on telephone poles or in the fields, or flying right beside the road.

Finally we approached the northern part of the lake, but we could not see any bird which resembled a crane. In the meantime the sun began to set and we arrived at the marsh. We were watching two flights of Brewer's Blackbirds and Lapland Longspurs when suddenly we heard the well-known shouts of the cranes. We searched the sky then and one of us discovered the first flight of about 40 or 45 Sandhill Cranes. They flew down to the lake to spend the night there, coming from the fields where they had been feeding.

Meanwhile the sunset had reached the point where it was the most beautiful. The whole sky over the lake was suffused with colour — from red and orange to yellow. I was fascinated by

this view and again, when I turned around, by what I could see in the other direction where a full moon was rising in the nearly black sky. At that moment I was no longer listening to the shouts of Janie calling out: "There is another flock of about 70 cranes. Oh and look! How many are there over there?" I was so fascinated by this spectacular scenery at the huge and wide horizon that I was quite unaware of anything else that was happening around me. Such a beautiful sunset is so unusual in Germany that I did not even watch the cranes any more. Then the sun disappeared and we discovered more and more cranes in the sky which was becoming darker and darker. Cranes, which have such a majestic way of flying, landed just in front of us on the lake. Soon the air was filled with the sound of their shouting, so it was difficult to understand each other's words.

We were watching the cranes resting on the small islands in the water when suddenly Miss Belcher shouted "There! I see a Whooping Crane!" Knowing that there are so few Whooping Cranes left in the world, we were all very excited. For quite a long time we observed this unusual bird standing in the tall grass on a small island among all the other cranes. But then it was soon so dark that we could hardly see anything more. So we had a picnic at a small open fire while listening to the sustained shouting of the cranes. After this rather romantic supper we brought all our things back into the car and returned to Regina, very happy, satisfied, and a bit tired.

The enthusiasm I had shown for this birding trip to Last Mountain Lake prompted Miss Belcher to ask me about our bird activities at home in Bad Pyrmont. In Germany everything is different from Canada. People live much closer together, every few miles there is a village or a town — on 250,000 square kilometers 60 million people live. Compare Canada with an area of 3,852,000 square miles and a population of 16 million people! So you can imagine that one cannot find large plains; original wilderness hardly

xists. We are content when we see a row or hawk circling over our nice Wesenbergland." Cranes cross Bad Pymont every fall on their journey south or in spring on their way back north. That is the European Crane, which flies in a formation. His loud and far-reaching shouts bring us to the balcony or out of the house.

My home town, Bad Pymont, is well known for its mineral springs to which people from all over Europe come to drink the water. Mainly Bad Pymont possesses a famous, very extensive park, gardens with flower-beds, broad avenues with fountains and old trees. Here one finds many native song birds to which the park offers protection—quiet, food and a nesting place. When one walks in the park in the morning or in the afternoon, one always finds tourists with food in their hands, waiting for the birds. Chaffinches, titmice, nuthatches, woodpeckers climb on the hands of the visitors.

In the evening, when it gets dark, one can hear the shouts of the owls which nest in the big trees. Mainly it is the big tawny owl then that shouts its loud "hoo", turning his head in such an amusing way and flying away very silently. Or the Käuzchen, the teinkauz, called Totenvogel or "bird of death", shouts its awesome "huihui" through the night. A few hundred years ago these cries would have frightened people who believed them to be ill omens, but owls are so common and familiar to us that those thoughts do not come to our minds.—*Innetraut Panse*, Bad Pymont, Germany.

PILEATED WOODPECKERS

On March 9, 1970, there was a Pileated Woodpecker in a tree barely 100 feet from our living-room window. We watched it for over an hour as it started taking a black poplar apart river by sliver. It threw a 6 x 12 inch piece of bark over its shoulder with ease. The tree proved to be insect ridden and a sudden squall blew it over later in the spring.

On November 9, 1970, Mrs. Roy Bett of Carlea reported seeing a Pileated Woodpecker in their yard. We both live within a mile or two of the Carrot River but we are in open farmland. Ordinarily the Pileated Woodpecker is seen only in dense timber. I have a theory that they might be coming into open farmland to feed on insect-ridden black and Russian poplar trees that have been planted in the shelterbelts. These poplars were popular in the 30's because they are quick growing but now they are all in some stage of decay and they make good feeding places for the woodpeckers.—*Mrs. M. Robin*, Box 149, Aylsham.

FISHING ANYONE?

During the 1970 fishing season, Mr. Frank Borcsok, Oxbow, caught a pike in the Souris River south of Oxbow. The fish weighed 13½ pounds and was 35½ inches long. It is a number of years since fish of such size have been caught in the Souris River so naturally the event was recorded in *The Oxbow Herald*.—*Hazel Paton*, Oxbow, Saskatchewan.

WEASELS

The farmer has no better helper than the weasel. Sometimes they are said to be bloodthirsty animals but I think they do more good than bad.

Every fall we have trouble with rats which move into our silo shed where some crop has been spilled. We try to poison them but we are never sure if they have all been destroyed.

One day last November we noticed a dragging mark in the snow. Beside the dragging marks were tracks nearly as large as a cat's tracks, but they were weasel tracks. A weasel had dragged a rat from the bale stack some 200 yards to a small stone pile. I noticed the same tracks around our granaries and pig barn so now we know that our rat problem has been taken care of for this winter.—*Rosemary Nemeth*, Junior Naturalist, Yellow Creek, Saskatchewan.

1971 SNHS SUMMER MEET AT INDIAN HEAD

by **Rose McLaughlin** and **Mary Skinner**, Indian Head

This year the Saskatchewan Natural History Society field meeting is slated for the weekend of June 11-13 at Indian Head. This beautiful and historic little town lies in the centre of an undulating clay-loam plain with prosperous farmlands interspersed with grasslands and aspen bluffs, broken here and there by narrow, wooded coulees leading into the Qu'Appelle Valley some ten miles to the north. The terrain to be covered by our field trips is bounded on the north by the Qu'Appelle River and Katepwa Lake, on the east by the Red Fox coulee, and on the south by the watershed which divides the Qu'Appelle River Basin from the adjoining Souris River system.

This height of land, reaching a peak of 2200 feet at the Squirrel Hills to the southwest, cradled in glacial times a lake which reached to the northern rim of the Qu'Appelle Valley. Vestigial remains form the present "interlake" chain comprising Lake Marguerite,

Cherry Lake, Deep Lake, Rasperry Lake, Strawberry Lake, and (literally) Dry Lake.

This well-watered region with its wooded coulees and abundant game had always been a favoured haunt of Assiniboine and Plains Cree Indians. Inevitably, by the early 1800's, the Qu'Appelle River became a highway for fur traders and missionaries. Next the Metis — buffalo hunters and pemican vendors — wended their way across the prairie in Red River carts angling from Fort Ellice to the little fur traders' outpost by the springs in the shadow of the Squirrel Hills.

Explorers followed their trail — in 1857, pessimistic Palliser; in 1858, Professor Yule Hind, who first grasped the possibility of linking the Qu'Appelle River with the South Saskatchewan; in 1859, the Scottish Earl of Southesk, writing in his log of the view from the Squirrel Hills looking over the cabri (pronghorn) far out on the plain, and the tangle of wildflowers



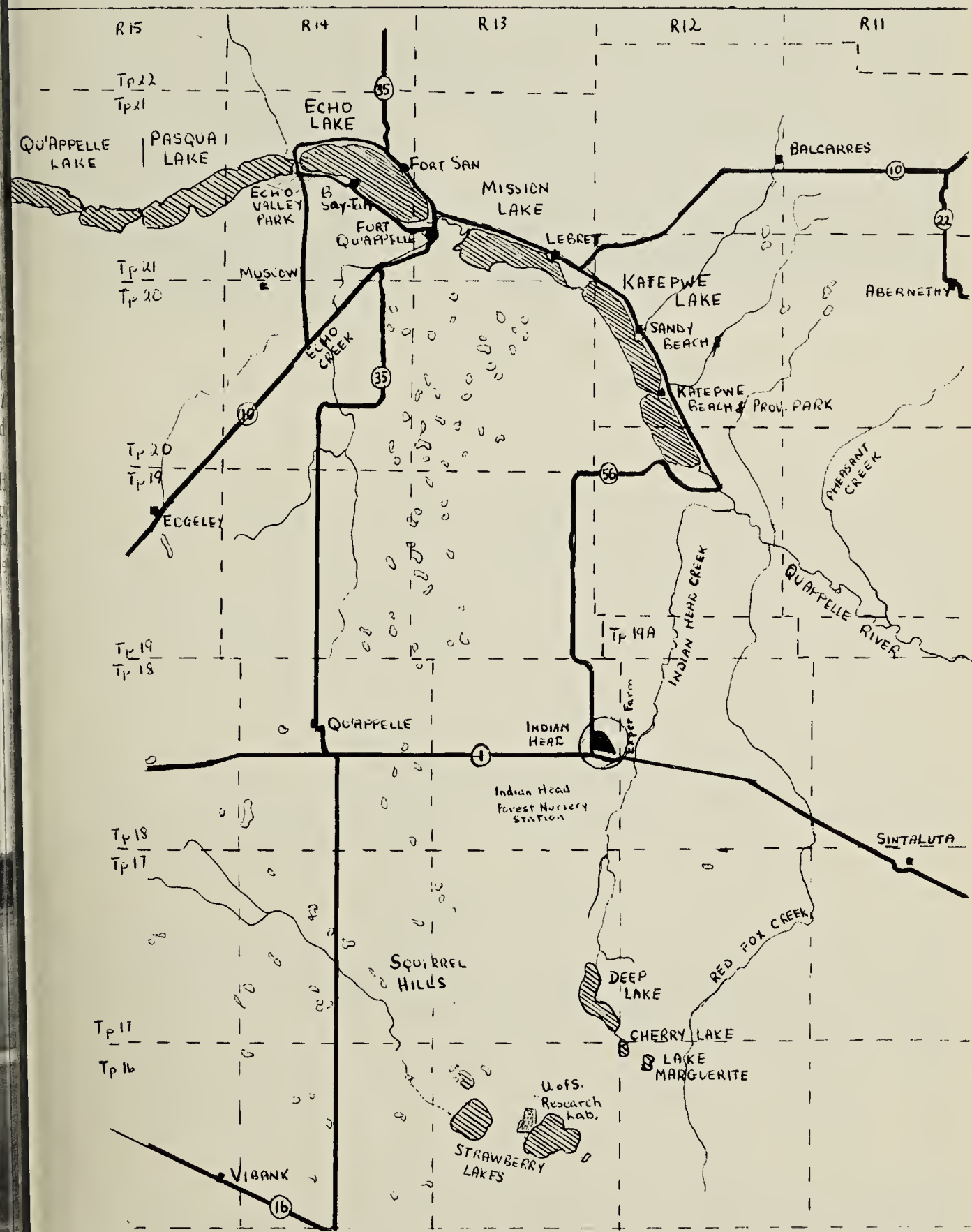
Qu'Appelle Valley at Brown's.

Photo by Mary Skinner, Indian Head

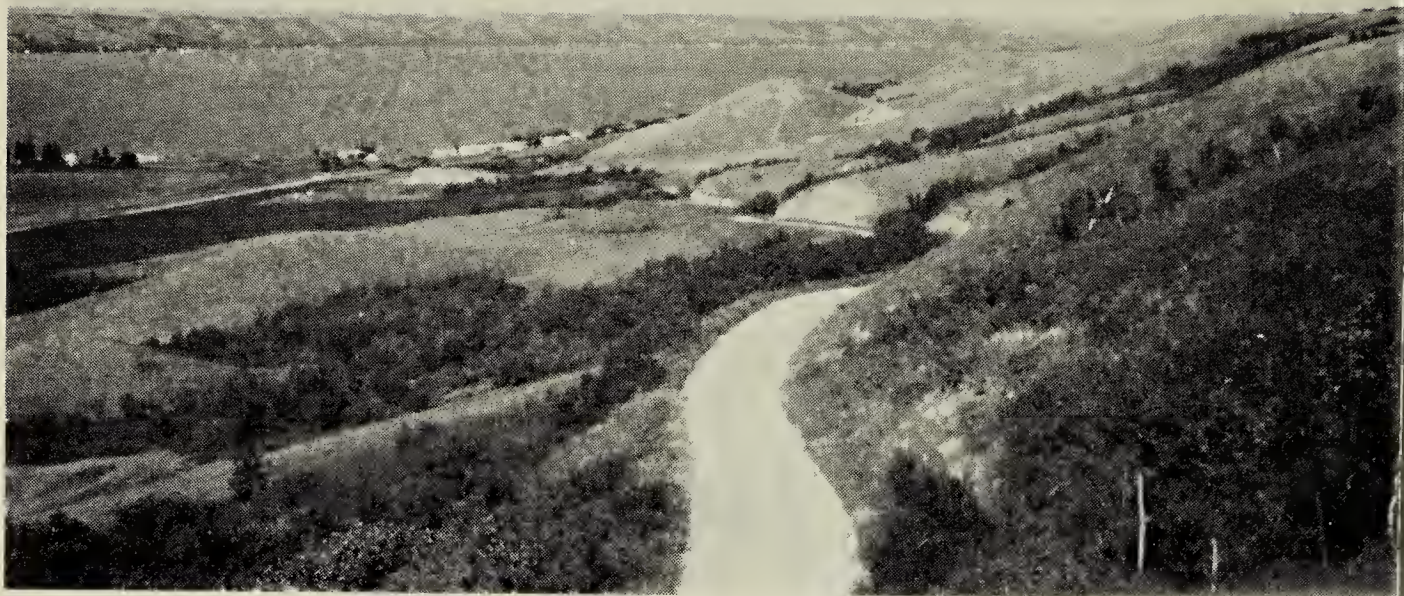
wreathing the prairie grass.

In 1882 came the first land seekers, the jump ahead of the CPR which brought a flood of settlers in its wake. At Indian Head two large-scale farming ventures flourished briefly—Major Bell's nine-mile square Qu'Appelle Valley Farming Company, 1884-1889, and Lord Brassey's "Sunbeam Farm"

Colonization Company, 1889-1895. Today on Highway 56, a mile north of town, the last of the Bell Farm buildings, a round stone barn built like a fort in the year of the Northwest Rebellion, still stands. The Big Farm idea was a failure, but farming thrived. At Indian Head, the Dominion government established an Experi-



Location of SNHS Summer Meeting, June 11-13, 1971.



Dogtown hill, Qu'Appelle Valley

Photo by Mary Skinner, Indian Head

mental Farm in 1887, and a Forestry Farm in 1903. Here in 1902 was formed the Territorial Grain Growers Association, forerunner of the Wheat Pool. At the turn of the century Indian Head shipped out more grain than any other point in the world.

Meantime, settlement in the legendary Qu'Appelle Valley had developed along distinctive lines. From its source near the Elbow to its junction with the Assiniboine River, it had become a variegated chain of provincial and regional parks; Indian reservations; religious, educational, and cultural centres; and private recreational areas, interspersed with farmlands and occasional towns.

Spotlighted today by the hearings of the Qu'Appelle River Basin Commission, the Qu'Appelle Valley stands on the threshold of a new era.

The variety of habitats — lake, stream, marsh, meadow, sand dune, coulee, cut-bank, arid hillside, and stony pasture — makes the locality a challenging terrain for the naturalist. The writers of this article have found locally almost every flower listed in Carmichael's *Prairie Wildflowers*. All

the native trees and shrubs of the parkland are supplemented by many cultivated varieties at the Experimental and Forestry Stations.

Concentrations of waterfowl and shorebirds are found, particularly at Deep Lake, where Canada Geese nest, and on the river flats, where the Great Blue Heron has become increasingly plentiful of recent years. And of course, Indian Head is Bluebird Country!

In bluffs and coulees white tail deer abound; the beaver is making a comeback; muskrat, porcupine, skunk, rabbit, fox, lynx, raccoon, and coyote wait from secret places. Out south there is reputed to be a cougar; unfortunately, he is more elusive than the Loch Ness Monster.

For further information about arrangements for the Summer Meet, June 11 - 13, write to Mrs. Rose McLaughlin or Mrs. Mary Skinner, Indian Head.

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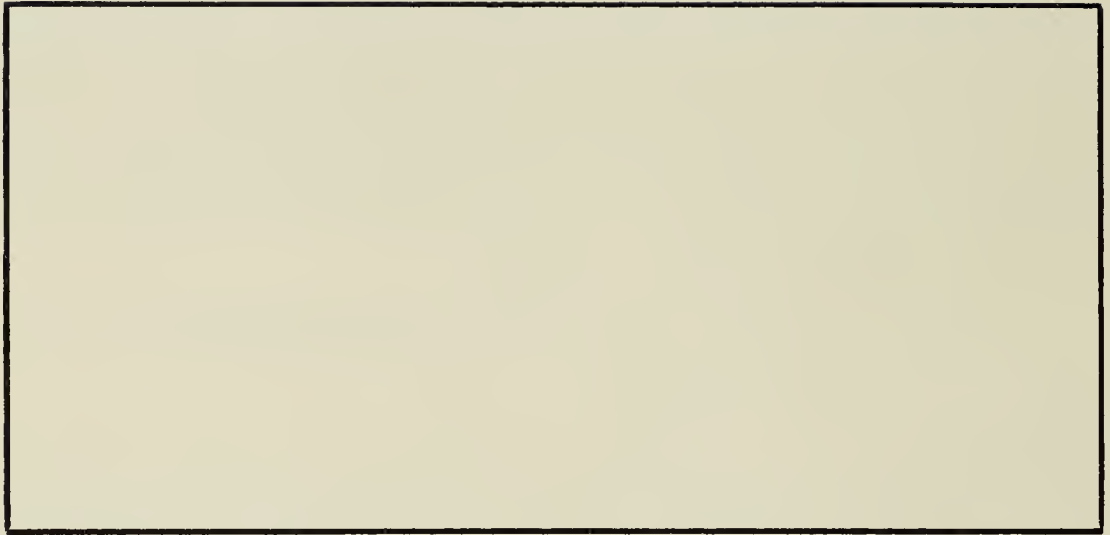
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